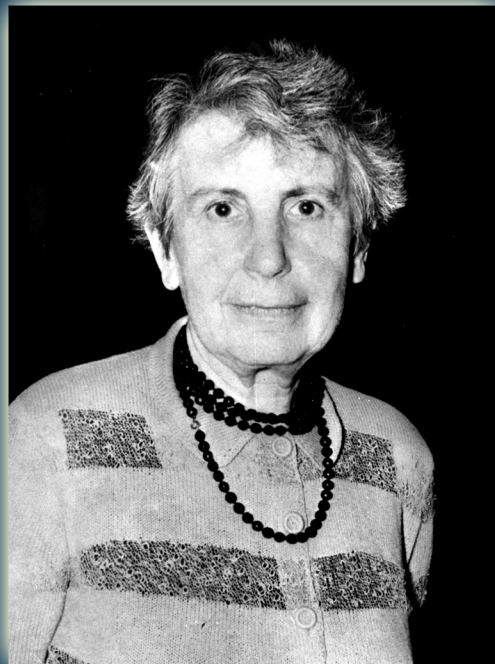




The International Journal of
INDIAN PSYCHOLOGY

Person of the Issue



Anna Freud (1895-1982)

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Message from Editors

Welcome to Volume 3, Issue1, No. 2. With this volume we have happy to inform, The International Journal of Indian Psychology (IJIP.IN) have celebrate 2nd anniversary. We have got lot of love, care and support to our lovely authors and as well as readers. At this moment we are share some our achievements. 24+ Regular Issues, 16+ Special Issues, Member of 10+ World Libraries, 4000+ Authors, Have 50+ Indexing and Abstracting Partners, We Indexing with 24+ Universities, 674149+ Site Visitors, 4.50 Impact Factor, 2000+ Register Site Users, Connected with 10+ Organizations, Connected with 7+ Smarts Publishers, 200+ Cited Titles, 8 Different Licenses, Global Rank ^9.179.008, and really, this is not possible without your warm support and love. Thanks a lot who have connected with us.

At last, our thanks go out to the members of the journal who have done their best to work at this collaborative effort. May you continue in this wonderful spirit, which, we are sure will sustain your efforts in the future towards enhancing and enriching this journal.

Dr. Suresh Makvana¹
(Editor in Chief)
Mr. Ankit Patel²
(Editor)

¹ ksmnortol@gmail.com

² info.ankitpatel@asia.com

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Person of the Issue: Anna Freud (1895-1982)

Ankit Patel¹

Born	December 3, 1895, Vienna, Austria
Died	October 9, 1982, London, United Kingdom
Citizenship	Austrian
Known for	Work on the nature of ego Founder of child psychoanalysis Defense mechanisms
Training	Doctor of Medicine (honorary), University of Vienna, (1975) Doctorate of Science (honorary), Jefferson Medical College, (1964) Doctor of Law (honorary), Clark University, (1950)
Primary Affiliation(s):	International Psychoanalytical Association, (1927-1934) Vienna Psychoanalytical Training Institute, (1935-1938) The Hampstead War Nursery, (1941-1945) The Hampstead Child Therapy Clinic, (1952-1982)



The name Freud is most often associated with Sigmund, the Austrian doctor who founded the school of thought known as psychoanalysis. But his youngest daughter, Anna, was also an influential psychologist who had a major impact on psychoanalysis, psychotherapy, and child psychology. Anna Freud did more than live in her father's rather long shadow. Instead, she becomes one of the world's foremost psychoanalysts. She is recognized as the founder of child psychoanalysis, despite the fact that her father often suggested that children could not be psychoanalyzed.

Anna Freud was born December 3, 1895 in Vienna, Austria. As the daughter of Sigmund Freud, she was inescapably steeped in the psychoanalytic theories of her famous father; however, she did more than simply live in his shadow, pioneering the field of child psychoanalysis and extending the concept of defense mechanisms to develop ego psychology. After finishing her secondary education in 1912 at Cottage Lyceum in Vienna, she completed teachers' training and worked at her alma mater as a classroom teacher for five years. Of her school years she declared that she learned far more at home from her father and his guests. Indeed, she acquired knowledge of psychoanalysis from this group to which few others had access, and this grounded her life-long contributions to the field.

¹ Clinical Psychology, Dept. of Psychology, Sardar Patel University, Vallabh Vidyanagar, Gujarat

Person of the Issue: Anna Freud (1895-1982)

The details of Anna Freud's personal life are consistently cryptic, but that her father was the only man in her life long-term is certain. Letters between her and Eva Rosenfeld during the Vienna years are a rare opportunity to catch a glimpse of the very private Anna. According to contributor Gunter Bittner, the letters *"convey the picture of an affectionate, intensely human Anna Freud without a trace of rigidity or psychoanalytic orthodoxy. Here...is a shy young woman of deep feeling. " Indeed she said of herself, "I was always looking outside myself for strength and confidence but it comes from within. It is there all the time."*

Anna Freud died on October 9, 1982 at the age of 86 at her London home. A tribute published in the *New York Times* following her death, noted that *"Freud virtually invented the systematic study of the emotional and mental life of the child and elaborated on it in 50 years of observation, discussion and writing."* She stepped out from beneath her father's very long shadow to make her own very substantial mark upon the field of psychoanalysis, but always remained loyal to his memory and determined to secure his legacy. Upon her death, the Freud family home became a museum dedicated to him.

TIME LINE

1895- Born December 3 in Vienna, the sixth and youngest child of Sigmund and Martha Freud is born. They name her Anna.

1905- Anna starts school at Salka Goldman Cottage Lyceum - she will later return here as a teacher.

1909- From the age of 14 Anna Freud's interest in psychoanalysis was clear. This paved the way for the rest of career.

1912- Finished schooling at Cottage Lyceum, Vienna

1914- During a holiday to England, WW1 breaks out, meaning Anna must flee back to Vienna as an enemy alien.

1914 Sept.- Returning to her old school, Salka Goldman Cottage Lyceum, she begins her teacher qualification.

1918- Although parent/child psychoanalysis is deemed controversial, this series of psychoanalysis was, in the end, concluded as successful.

1920- After 6 years at her old school she finally qualifies as a teacher. This experience becomes invaluable in her child psychoanalysis research.

1920- Attended the International Psychoanalytic Congress at The Hague

1922- Anna reads a formal paper to the Viennese Psycholanalytic Society in order to become an accredited member.

1922 Oct.- Anna attends the International Psychoanalytic Congress of Psychoanalysis in Berlin, founded by her father.

1922- Presented paper Beating Fantasies and Daydreams to Vienna Psychoanalytic Society and became a member

1922-1935 Introduction to Psychoanalysis

1925- Taught seminar at Vienna Psychoanalytic Institute on technique of Child Analysis

Person of the Issue: Anna Freud (1895-1982)

1927- Introduction to the Technique of Child Analysis

1927-1934- General secretary of the International Psychoanalytic Association

1935- Director of Vienna Psychoanalytic Training Institute

1936- The Ego and the Mechanisms of Defense

1937- 'The Ego and the Mechanisms of Defence', the first of Anna's books, is published in English. To this day it remains a very important work.

1938- As the Nazis enter Vienna, the Jewish Freud family leave Austria and flee to England.

1939- Anna's father Sigmund Freud dies from jaw cancer less than a year after their move to England.

1939- With the outbreak of World War Two Anna sets up residential war nurseries in Hampstead for homeless children of war.

1939-1945-Infants without Families

1941-1945- Harsh divisions between Anna and her colleague Melanie Klein, documented in a series of Controversial Discussions, end when the British Psycho-Analytic Society split into three training divisions, however the Society remained whole

1945-1956- Indications for Child Analysis and other papers

1947- Establishment of Hampstead Child Therapy Courses and children's clinic

1950- Honorary doctorate from Clark University

1950 to death- traveled back and forth to US to give lectures

1951- Anna's mother, Martha Freud, dies.

1956-1965 Research at the Hampstead Child Therapy Clinic

1965- Anna's seventh title is published, one of her most important books which continues to make contributions in the fields of education and paediatrics.

1965- Normality and Pathology in Childhood

1967- Problems of Psychoanalytic Training, Diagnosis and the Technique of Therapy

1967- Received C.B.E. from Queen Elizabeth II

1968- Publication of collected works

1970- Psychoanalytic Theory of Normal Development

1972- Received honorary medical doctorate from Vienna University

1973- Received honorary president of International Psychoanalytic Association

1975- Anna receives her MD from the University of Vienna.

1981- Anna is awarded with a PhD from Goethe Institute in Frankfurt.

1982- Died October 9th

1983- Hampstead Clinic becomes Anna Freud Center as tribute to her memory

1986- Home of 40 years changed into the Freud Museum

AWARDS & ACHIEVEMENTS

- In 1965, she received the Dolly Madison Award.
- In 1967, she was named a Commander of the British Empire by Queen Elizabeth II.
- In 1975, she was awarded an MD degree from the University of Vienna. The same year, she also received the Grand Decoration of Honor in Gold.

MAJOR WORKS

- She created the field of child psychoanalysis and her work contributed greatly to the understanding of child psychology. She noted that children's symptoms differed from those of adults and were often related to developmental stages.
- One of her most significant published works is 'The Ego and the Mechanisms of Defense' in which she outlined and expanded upon her father's theory of psychological defense mechanisms.

QUOTES

"Creative minds have always been known to survive any kind of bad training."

"I was always looking outside myself for strength and confidence but it comes from within. It is there all the time."

"Create around one at least a small circle where matters are arranged as one wants them to be."

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The Relation between Social Support and Marital Satisfaction & Couples' Depression after the Birth of the First Child

Seyyede Samera Hoseini¹, Leili Panaghi¹, Mojtaba Habibi²,
Jaber Davoodi¹, Mani B. Monajemi³

ABSTRACT

Background: Child Birth can play a major role in parents' mental status and though it is considered as cherished event, it can dramatically jeopardize mental state of parents. Thus, we conducted this paper in order to study the relation between social support and marital satisfaction and couples' depression after the birth of the first child.

Methods: Statistical population was consisted of 75 couples (parents). They were assessed via Edinburgh Postnatal Depression scale, marital satisfaction (ENRICH) and Multidimensional Scale of Perceived Social Support.

Results: Regression analysis showed that there was a significant and inverse relationship between social support and depression among men and women after childbirth. Furthermore, there was a significant relationship between marital satisfaction and depression among men and women after childbirth. In addition, social support and marital satisfaction can be explained by the predictive role of depression in men after childbirth. But only social support can be predictive for explaining depression in women after childbirth.

Conclusion: Thus, inadequate social support and low marital satisfaction can put couples at risk of postpartum depression.

Keywords: *Post Partum Depression, Marital Satisfaction, Depression, Social Support*

In pregnancy and postnatal period mother and her family demand a lot of attention and support. Parents tend to cope with the newborn situation accordingly and they adapt themselves to its economic and social impact. This period can be so challenging that it may trigger various mental disorders and target many individuals from all social and cultural classes(1). Eighty percent of women who give birth to a child experience "slight depression or baby blues", which may be accompanied with sudden mood swings. These mood swings may disappear after a short period in most cases and if these mood swings do not disappear or even make progress in a woman,

¹ Family Research Institute of Shahid Beheshti University, Tehran, Iran

² Assistant Professor at Family Research institute, Shahid Beheshti University (Email: mo_habibi@sbu.ac.ir)

³ Department of Clinical Psychology, University of Tehran, Tehran, Iran

(Email: mani.b.monajemi@warwickgrad.net, mani.b.monajemi@ut.ac.ir)

The Relation between Social Support and Marital Satisfaction & Couples' Depression after the Birth of the First Child

then the condition may develop into postpartum depression which is considered as a serious and detrimental condition and must be treated urgently. This type of depression interferes with mother's daily activities. In case the condition is left untreated, the symptoms exacerbate and persist for a long period (1year)(2). Postpartum Depression (PPD) is considered as one of the major depressive disorders which appears within four weeks from childbirth according to Diagnostic and statistical manual of mental Disorder (DSM-IV) and within six weeks from childbirth according to International Classification of Disease(3). Postpartum depression may affect any woman of any age, economic situation and racial background. This type of depression tend to have more impact on women with low income (4).

When the expression "depression after childbirth" is heard, women who have recently given birth to a child are generally thought of as the sole target of this condition, while this type of depression can inflict men too(5). Studies have shown that 1 in 10 fathers suffer from postpartum depression. The expression "Postpartum Depression" is not yet well established and used for men's depression after childbirth. This condition for men is usually expressed by phrases such as: paternal depression after childbirth, men's mental disorder after wife's childbirth and etc.(6). Three point three percent of men experience clinical or general depression annually. Much effort has been made to estimate the depression rate of fathers after childbirth(7). According to a meta-analysis based on 43 studies on 16 countries, the depression rate in men after childbirth stands at 10.4% (8). 3 in 10 men experience depression within 6 weeks from childbirth. Researchers estimated that 10% of men suffer from paternal depression after childbirth(9). The etiology of postpartum depression is not yet known but several studies have identified several factors causing depression, which are: pre-natal stressors, mental stressors, demographic characteristics, socio-economic and socio-cultural factors, lack of perceived social support(10,11,12,13,14). Inadequate perceived social support is a determining factor in postpartum depression in men and women. Perceived social support includes support received from different sources such as family members, colleagues, friends, neighbors, professional people and organizations(15).

While women can rely on their spouse's support(16), men also need social support and emotional support from their spouse(17). Fathers with less perceived social support exhibit more mental disorders(1, 18). In contrast, fathers with adequate perceived social support are not only less prone to postpartum depression, but also can prevent such depression in their wife(19). Regarding men who have become a father recently, in addition to wife's mood, which plays an important role in father's depression, many other factors are involved. These fathers are not familiar with childbearing and child-caring issues, which may put them in a bottleneck. In such conditions, fathers tend to seek support from the most obvious source, which are their wives. Nonetheless, when this primary source of support is herself depressed and needs support, then she is not available to provide enough support. Such conditions coupled with marital

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dissatisfaction and several financial limitations and problems, can cause much severe stress, which ultimately leads to severed postpartum depression symptoms(20).

In various literature, a relationship between marital satisfaction and postpartum depression and parental stress is reported(21, 22). Couples' quality of life is affected by childbirth as the child is seriously taken into consideration in addition to previous goals and concerns; thus, a shared sympathy, support and attention is demanded for heartening one another for the existing concerns and worries(23).

Hence, the authors of current paper deemed it appropriate to study the relation between perceived social support, marital satisfaction and men and women's postpartum depression level. This paper attempt to answer the questions on the predicting role of women's depression level, social support and marital satisfaction in men's postpartum depression level as well as the predicting role of men's depression level, social support and marital status in women's postpartum depression level.

METHODS

The current study is a correlational study. The population of the study consisted of couples, whose first child's age was between 3 to 6 months. Although postpartum depression appears within 4 weeks after childbirth(3), to distinguish between this type of depression and baby blues and as the climax of this type of depression is reported to appear within 3 to 6 months after the childbirth(24), the participants of the study were chosen from parents whose first child had been born between 3 and 6 month before and had referred to child care centers in five regions of Tehran - north, south, east, west and center. The population under study constituted 150 people (75 couples/parents), who were selected via availability sampling method. Some inclusion criteria were taken into consideration for the participant's involvement in the study: 1- the parents had a child between 3 to 6 months old; 2- they had referred to child care centers for routine checkups after the birth of the 1st child; 3- the participants were couples (father, mother and the child); 4- the parents were literate; 5- the participants consented to taking part in this study. Some criteria were also taken into consideration for exclusion of individuals from the population of the study: 1- parent who were referring to a conselour or psychiatrist; 2- according to their own statement, they had a mental disease record; 3- regarding their child's disease, they had referred to medical centers. As one of the exclusion criteria was child's disease, and as the patient's child was present for vaccination in most of the medical centers, hence childcare centers were selected for this study as they were visited for many childcare checkups. The tools required for data gathering and measuring the variables included the multidimensional scale of perceived social support (MSPSS), marital satisfaction (ENRICH), and Edinburgh postnatal depression scale (EPDS).

Multidimensional scale of perceived social support (MSPSS): This scale is a tool comprised of 12 statements designed for evaluation of perceived social support from 3 sources: family,

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friends, and major people in life. A high score in this scale indicates a high level of perceived social support. Researchers evaluated the internal consistency through Cronbach's Alpha of 0.93 for three subscales of family, friends and important people to stand at 0.91, 0.89, and 0.91 respectively(25).

Marital Satisfaction (ENRICH): The ENRICH marital satisfaction questionnaire is composed of 10 sub-scales, which include personality traits, marital relationship, ability to resolve issues, financial management, free time, sexual relationship, child caring, family and friends, equality roles, and spouses' religious orientation. The questions are 5-choice questions whose potential answers range from 1 to 5 in tone. According to Olson's report(26), the validity of the test for the above subscales are 0.73, 0.68, 0.75, 0.74, 0.76, 0.48, 0.77, 0.72, 0.71, and 0.42 respectively. The retest validity of the questionnaire was 0.86 after 4 weeks.

Edinburgh Postnatal Depression Scale (EPDS): This scale measures the postpartum depression in women exclusively and was published for the first time in 1987. This scale is comprised of 10 self-report multiple-choice questions, which focus on mental aspects of depression and it is concerned with individual's feelings within the past weeks. Using this scale requires no special knowledge and has been employed for women for more than two decades. Evidences regarding using this scale for men's postpartum depression, dates back to 1990. The test takes 5 minutes to answer the questions. The Edinburgh test as a test with a limited number of questions and with pretest-posttest consistency coefficient of 0.98 and Cronbach's alpha coefficient of 0.76 has proved to be an efficient method for evaluation of postpartum depression(27).

At the first step, questionnaires related to perceived social support, marital satisfaction and Edinburgh Depression were given to the parents and after gathering the data; they were encoded by SPSS software and were analyzed. To analyze the research data, descriptive statistics including central indices (mean) and dispersion indices (standard deviation) were employed due to normal distribution in samples. To evaluate the determining role of independent variables in formation of dependent variables, linear regression and independent-sample T test were utilized. Before using regression analysis, the distribution of data was evaluated by assessing the multicollinearity by means of Tolerance criterion and outliers and the data were eligible for using this information criterion. It was then specified that the tolerance criterion coefficient stood between 0.742 and 0.899 for predicting postpartum depression, which in fact indicates nonlinearity and also suggests the stability of the regression model. This also suggests that the VIF value for each variable in relation with postpartum depression in women and men stands in a range of 1.11 to 1.34 respectively. Multivariate regression analysis was utilized to evaluate the depression level in men, considering the predicting role of women's depression, social support and marital satisfaction.

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Parent's postpartum depression was considered as the dependent variable and social support and marital satisfaction were considered as independent variable in this study.

RESULTS

One hundred fifty individuals (75 parents), who had referred to child caring centers in Tehran were invited to participate in this research. According to the data obtained, the female participants' age ranged from 20 to 44 years old (females' mean age: 29.88 years old) and male participants' age ranged from 20 to 49 years old (males' mean age: 33.60 years old). The educational status of participants was: diploma (Fathers: 26.7%; Mothers: 16%); associate (Fathers: 8%; Mothers: 10.7%); BSc. (Fathers: 44%; Mothers: 53.3%); MSc. (Fathers: 10.7%; Mothers: 10.7%); Ph.D. (Fathers: 10.7%; Mothers: 9.3%)

Table-No1. Regression analysis results of predication of women's postpartum depression level, social support and marital satisfaction on men's postpartum depression

Criterion Variable	Beta	t	Significance Level	Adjusted R ²
Women's Depression Level	0.051	-0.605	0.547	0.490
Social Support	-0.263	-2.841	0.006	
Marital Satisfaction	-0.549	-5.905	<0.001	

According to Table No-1, the effectiveness coefficient of women's depression level, social support and marital satisfaction with regard to their significance level show that social support, marital satisfaction plays a predicting role in justification of women's postpartum depression.

Table No-2. Regression analysis results of predication of men's postpartum depression level, social support and marital satisfaction on women's postpartum depression

Criterion Variable	Beta	t	Significance Level	Adjusted R ²
Men's depression level	-0.018	-0.146	0.884	0.151
Social Support	-0.368	-3.255	0.002	
Marital Satisfaction	-0.154	-1.237	0.220	

As shown in Table-2, the effectiveness coefficient of men's depression level, social support and marital satisfaction with regard to their significance level show that social support plays a predicting role in justification of men's postpartum depression.

DISCUSSION

The current study aimed to study the relation between social support and marital satisfaction and men and women's depression level after the birth of their first child. Data analysis using regression showed that social support and marital satisfaction could predict men's postpartum depression level (Table-No1). In order to justify the results, the following points can be stated: Most young fathers experience new demands and responsibilities upon transition to the parenthood phase(28). These stressors can have deteriorating and destructive impact on father's performance and their mental health and somehow they put fathers on a verge of depression(29). Available social support as well as improving individual's self-knowledge helps to decrease the tension and improve men's quality of life(30) and reduces their susceptibility against new stressors(31), men tend to emotionally rely on their spouses while women tend to internalize their concerns. Men's perception of marital satisfaction is related to their postpartum depression; while women's perception of satisfactory relationship with their spouses does not prevent their postpartum depression(32). In current study it was also specified that women's depression level does not have a predicting role in men's postpartum depression level. To justify this finding, the following points can be stated: although women's depression has a predicting role in men's postpartum depression, this does not prove to be true in all cases(33,34). With respect to the predicting role of men's depression level, social support and marital satisfaction for women's postpartum depression level, the analysis results of data using regression shows that only social support can predict women's postpartum depression (Table-No2). To justify this finding, the following points can be stated: The changes which are formed in responsibilities, relationships and social demands of a woman in the postnatal period can turn the period into a stressful one(35). Carrying our household affairs and satisfying other family members' needs is a vital and it needs precise approach (36). Thus, all these pressures and stresses can lead to postpartum depression, especially in women undergoing less social support(37). Furthermore, women's expectations from their spouse is higher during postpartum depression period; thus, men who themselves are under pressure and depressed may not be able to provide the required adequate support during the postpartum depression period for their wife. This inadequacy can ultimately increase the depression level in women(38). It was also specified in the current study that marital satisfaction does not have a predicting role in women's postpartum depression level.

What is already known on this topic?

Some researchers point out issues, which relate only to men's experience after the birth of the first child. They also state that men can experience postpartum depression independently from their spouse(39). Gotlib and Colleagues (1991), Buist and Colleagues(2003) obtained a similar result in their studies about relation between marital satisfaction and postpartum depression(40, 41). Bernard(1991) in addition stated that women's perception of a satisfactory relationship with their spouse does not necessarily prevent postpartum depression in women (42). Another finding of the current study was the non-predicting role of men's depression in women's postpartum depression level. Although many researchers have studied the role of various factors in women

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postpartum depression level(43), no literature review could be found on the predicting role of men's depression in women's depression.

WHAT THIS STUDY ADDS

In conclusion, the results of the present study clarified that research on social support and marital satisfaction and men and women's postpartum depression reflect obvious bilateral principles. Recognition of the fundamental role of these factors impacting men and women's life who have become parents recently as well as the parent-child relationship can be a foundation for understanding the challenges, which will be faced by depressed parents. This awareness is necessary for any efficient intervention for helping parents to cope with their postpartum depression and reach peace in their family and social environment. As the current study had focused on an almost homogeneous population, therefore it would be better for further studies to focus on a more diverse population including individuals from different cultural backgrounds and from various regions so the findings can be generalized.

To justify this finding, it can be stated that as the mental aspects of men's depression and concern is not well-illustrated in diagnostic interviews or self-reporting tools, thus men's depression may remain hidden(Wilhelm et al., 1988). Men have less tendency to talk about their depression or other mental issues with their physicians(Paulson et al., 2010; Ramchandani et al., 2008).Therefore, as men's depression is diagnosed with much difficulty, its impact on women's depression level has been addressed less.

LIMITATIONS OF THIS STUDY

Our study has some limitations. Research data related to depression, perceived social supports and marital satisfaction were collected using self-report, data-collection tools. Since EPDS is a screening test, results may not accurately reflect the prevalence of PPD. Furthermore, this study focused only on the impact of social support and marital satisfaction of men and women on depression after the birth of children; While other studies have pointed out other important risk factors such as unplanned pregnancy, gender of child, personality characteristics, History of mental illness, Adoptive family of men and women, frequency of pregnancy and childbirth that have an influence on mood status of parents.

Authors' contributions

SSH and LP conceived and designed the evaluation and they conducted whole process of this study. MBM and MH collected and interpreted the clinical data and drafted the manuscript. JD participated in conducting statistical evaluation. All authors read and approved the final manuscript.

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Declaration of interest

None declared

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A Study of Perceived Stress, Suicidal Ideation and Religiosity among Young Adults

Sana Shafi¹, Dr. Touseef Rizvi²

ABSTRACT

Stress is the extent to which individuals perceive that their demands exceed their ability to cope. Stressful events in an external or internal environment of a person can result in illness or suffering if there is failure to adapt oneself to change. The amount of stress that young adults face nowadays is very high. Due to strain of studies, the constant worrying about job availability and general lifestyle changes, a large increase in suicidal attempts has been seen. But even in these dire circumstances, there seems to be a buffering role of religiosity against stress in the young adults. The present research venture was aimed to study the relation between perceived stress, suicidal ideation and religiosity among young adults. The sample consisted of 60 young adults (students) taken from various colleges from different parts of the Kashmir valley. The results of the study revealed that there was positive correlation between perceived stress and suicidal ideation, negative correlation between perceived stress and religiosity and no correlation between religiosity and suicidal ideation among young adults.

Keywords: *Stress, Suicidal Ideation, Religiosity, Young Adults.*

Stress is an internal state that is caused by the physical demands on the body or by environmental and social situations. Many ongoing situations like noise, traffic, weather conditions and even everyday issues involving family, work, health etc are stressors. Stress is a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioural changes that are directed either towards altering the event or accommodating to its effects.

Suicidal ideation is a term for thoughts about or an unusual preoccupation with suicide. The range of these thoughts range from fleeting to detailed planning, role playing and unsuccessful attempts. It is a distressing phenomenon because other people are unable to directly occupy the mental world of the suicidal. Stressful life events are strong predictors of increased risk for suicidal ideation. Life events like alcohol abuse, unemployment, bullying, loss of family and/or friends community violence etc have shown to increase the risk of suicidal ideation. Suicide is

¹ Phd Scholar Dept of Psychology, University of Kashmir

² Asst Prof, Dept Of Psychology, University Of Kashmir

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associated with many sources of distress including hopelessness, intolerable stress and helplessness (Kaplan, Sadock, Grebb, 1994).

Religiosity is a comprehensive sociological term used to refer to the numerous aspects of religious activity, dedication and belief. In its narrowest sense, religiosity deals more with how religious a person is than how a person is religious.

Studies have shown that stress and lack of meaning in life foster suicidal ideation, but major sources of suicidal ideation were related to religion. (Israelashvili & Mualem, 1991). Stack and Lester (1991) worked on the impact of religion on suicide, but they didn't find consistent results. However, they found that greater the church attendance, lower was the approval of suicide. They also found that the effect of religiosity on suicidal ideation is independent of education, gender, marital status and age. Greater levels of religiosity are found to be associated with a decreased risk of suicidal behaviour (Lizardi & Gearing, 2010).

The results of a study by Kristine Brown (2011) provided confirmation that depression, hopelessness, perceived stress, and suicide attitudes are independent predictors of suicide thoughts. The researcher confirmed that increased levels of depression, hopelessness and perceived stress are considerably related to and predictive of suicide ideation among college students. These findings are congruent with past research and provide further evidence that depression, hopelessness, perceived stress, and suicide attitudes are risk factors for suicide ideation.

Countries with higher religiosity tend to have lower suicide rates (Pelham & Nyiri, 2005). Religious worship attendance was associated with decreased risk of past twelve month suicide attempts in the general population (Rasic, Belik, Elias, Katz, Enns & Sareen, 2008). Religiosity affects the way people think about the stressful situation, but it does not affect the proportion of positive consequences perceived as outcomes of the events nor the causal attribution examined (Leowenthal, Macleod, Goldblatt, Lubitsh & Valentine, 2000).

An individual's commitment to core religious beliefs is protective against suicide (Stack, 1983; Stack & Kposowa, 2011). It has been seen that life events play an important role in the process of suicide as risk and precipitating factors and that suicidal individuals have lower levels of social support and disrupted social networks (Heikkinen, Aro, & Lonnqvist, 1993). In a study conducted by Dervic, et.al, it was seen that religiously unaffiliated subjects had significantly more lifetime suicide attempts and more first-degree relatives who committed suicide than subjects who endorsed a religious affiliation, which suggests that adherents to any of the major religious traditions are more likely to be religiously integrated and religious affiliation is correlated with fewer suicide attempts (Dervic, K., Oquendo, M. A., Grunebaum, M. F., Ellis, S., Burke, A. K. & Mann, J. J. 2004).

In a study conducted by Eun-Ok Park and Hyo Young Lee (2015), it was found that perceived bad health, stress, and depression had a significant influence on suicidal ideation in all age

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groups. Religiosity, influence of religion and church attendance were significantly negatively associated with suicidal ideation in a research done by Joseph D. Hovey (1999).

OBJECTIVES

- To find the correlation between perceived stress and suicidal ideation among young adults.
- To find the correlation between perceived stress and religiosity among young adults.
- To find the correlation between suicidal ideation and religiosity among young adults.

METHODOLOGY

Sample:

The sample consisted of 60 young adults taken from different parts of Kashmir.

Tools Used:

Perceived Stress Scale (PSS, 1983) (S.Cohen, T. Kamarck, R. Mermelstein). This is a 14 item questionnaire developed to assess the stress domains of unpredictability, lack of control, burden overload and stressful life circumstances. From all items, the respondents specify the frequency of the feeling, thoughts or circumstances described on a 5-point Likert scale ranging from 0 (never) to 4(very often).

Beck Scale for Suicidal Ideation BSS (BSS, 1991) (Aaron T. Beck, Robert A. Steer). The BSS is a 21-item self report questionnaire that may be used to identify and assesses the presence and severity of suicidal ideation. It also assesses the respondent's suicidal plans, deterrents to suicide and the level of openness to revealing suicidal thoughts. The reliability coefficient has been reported to be 0.87 and test-retest reliability 0.54.

Deka and Broota's Religiosity Scale (Deka J., Broota K.D. 1988). The religiosity scale consists of 44 items which measure the level of religious faith and belief in God. The items are not specific to any religion and therefore can be used on all religious groups. The items also attempt to tap the extent of a subject's adherence to the doctrines of his/her religious faith. The items are rated on a 5-point scale. The reliability coefficient has been reported to be 0.96

Statistical Techniques Used:

The data collected was analysed used various statistical techniques, keeping in view the objectives of the study. T-test, quartile, percentage and Pearson's correlation coefficient were used.

Procedure:

The subjects were personally approached in different colleges and instructed to give their responses on a questionnaire booklet. The respondents were given assurance of confidentiality to boost their motivation and reduce bias. After motivating the respondents, the questionnaires were distributed and necessary assistance was provided by the researcher where ever required.

RESULTS AND INTERPRETATION:

Table 1: Showing frequency and percentage of sample group on perceived stress:

Perceived Stress	Frequency	%age
Low	15	25
Average	32	53.34
High	13	21.66

The above table shows the frequency and percentage of perceived stress among young adults. From the table it is evident that 15 out of 60 (25%) of subjects that fall in level Q1 (20.48) and below are low in perceived stress, 32 out of 60 (53.34%) subjects that fall between levels Q1-Q3 are average in perceived stress and 13 out of 60 (21.66%) subjects that fall in level Q3 (29.72) and above are high in perceived stress.

Table 2: Showing frequency and percentage of sample group on suicidal ideation:

	Frequency	%age
Presence of Suicidal Ideation	8	13.3
Absence of Suicidal Ideation	52	86.7

From the above table it is evident that 8 out of 60 (13.33%) of subjects show suicidal ideation and 52 out of 60 (86.7%) show no suicidal ideation.

Table 3: Showing frequency and percentage of sample group on religiosity:

Religiosity	Frequency	%age
Low	15	25
Average	33	55
High	12	20

From the table it is evident that 15 out of 60 (25%) subjects that fall in level Q1 (107.5) and below are low in religiosity, 33 out of 60 (55%) subjects that fall in between levels Q1-Q3 are average in religiosity and 12 out of 60 (20%) subjects that fall in level Q3 (146.7) and above are high in religiosity.

Table4: Correlation between Perceived Stress and Suicidal Ideation

Perceived Stress	r=0.42*
Suicidal Ideation	

* Correlation significant at 0.05 level

N=60

The above table shows the correlation of perceived stress with suicidal ideation, and it is evident from the table that there is a significant correlation between perceived stress and suicidal ideation.

Table5: Correlation between Perceived Stress and Religiosity

Perceived Stress	r=0.34*
Religiosity	

* Correlation significant at 0.05 level

N=60

The above table shows the correlation of perceived stress with religiosity, and it is evident from the table that there is a significant correlation between perceived stress and religiosity.

Table6: Correlation between Suicidal Ideation and Religiosity

Suicidal Ideation	r=0.13 ^{NS}
Religiosity	

N=60

The above table shows the correlation of suicidal ideation with religiosity, and it is evident from the table that there is no significant correlation between suicidal ideation and religiosity.

DISCUSSION

The present study was aimed to assess Perceived Stress, Suicidal Ideation and Religiosity among young adults, correlation of Perceived Stress with Suicidal Ideation and Religiosity, and correlation of Suicidal Ideation with Religiosity among young adults.

The study revealed that of the 60 young adults, perceived stress was found to be high among 21.66% of the population, 53.34% of the population were having average perceived stress and 25% of the population was low on perceived stress. As far as suicidal ideation is concerned, only 13.34% of the population showed suicidal ideation and 86.7% showed no suicidal ideation. Religiosity was found to be high among 20% of the population, average in 55% and low in 25% of the population.

There was positive correlation between perceived stress and suicidal ideation, negative correlation between perceived stress and religiosity and no correlation between religiosity and suicidal ideation among young adults.

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Assessing Efficacy of Emotional Regulation Techniques on Alexithymia among Students Who Suffer From Dyscalculia

Esmael Soleymani¹, Mojtaba Habibi², Mani B. Monajemi³

ABSTRACT

Background: Dyscalculia tends to be debilitating for children with respect to their social interactions and learning process. Although it can cause so many problematic consequences in developmental stages of children, by implementing precise and in time therapeutic intervention, it can be mitigated. Current paper examines the efficacy of emotional regulation techniques among students who suffer from dyscalculia.

Materials and Methods: This study was experimental study with pre-test and post-test and control group. Statistical Society of this study included all students (4th, 5th, 6th grader), who suffered from dyscalculia in Bileh town (Urumieh Province/Iran) during 2013-2014 (N=76). This study consisted 34 students, who suffered from dyscalculia. These students were chosen via systematic random sampling. Data were collected using Raven IQ test, Shalev mathematical Test, Alexithymia Scale, Psychological wellbeing questionnaire. Regarding analyzing data, MANOVA was used.

Results: The results of multivariate analysis of covariance show that between case group and control, significant difference in components of alexithymia and psychological wellbeing were noticed. Hence, it can be inferred that emotional regulation strategies improves component of alexithymia and psychological well being of students with dyscalculia.

Conclusion: According to results, teaching emotion regulation strategies to students considered to be effective in promoting awareness and positive attitudes. Thus, it is plausible that implementing these strategies tend to play major role as an intervention among students with dyscalculia.

Keywords: *Emotion regulation, Alexithymia, Psychological well-being, Mathematics disorder*

A learning disability (LD) is a problem that interferes with how a person receives and process information. People with learning disabilities may have trouble with any of the following: Reading, Writing, Doing math, Understanding directions. LD should not better be explained by physical impairment (e.g. internal year dysfunction, MR, adverse environmental circumstances)

¹ Family Therapy Institute, Shahid Beheshti University, Tehran, Iran

² Family Therapy Institute, Shahid Beheshti University, Tehran, Iran (Email: mo_habibi@sbu.ac.ir)

³ Department of Clinical Psychology, University of Tehran, Tehran, Iran

(Email: mani.b.monajemi@warwickgrad.net, mani.b.monajemi@ut.ac.ir)

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(APA, 2013). LD is heterogeneous group of disorders, which interfere with normal function of individuals in various areas such as: Talking, Reading, Hearing, Writing and Calculation (Gartland & Strosnider, 2007). Dyscalculia is a subgroup of LD, which affects a person's capability to do math. Math disorders can take various forms and have different symptoms from person to person. In young children, dyscalculia may affect learning to count and recognize numbers. As a child gets older, he or she may face difficulty solving rudimentary math problems or memorizing things. Poor teaching procedure, environmental deprivation, psychological inflexibility and brain's malfunctioning in processing the concept of numbers may be number of factors causing dyscalculia (Ashkenazi et al., 2009). According to DSM IV, an individual who maintains weaker performance in spite of calendar age, IQ or educational level could be diagnosed by dyscalculia (Bauminger & Kimhi-Kind, 2008). The major problem in dyscalculia is problem in acquiring and remembering mathematical concepts; second problem is difficulty in completing tasks, applying ineffective problem solving skills, wasting a lot of time on solving mathematical tasks and having high rate of errors. Various hypotheses have been discussed with respect to etiology of this problem and combination of environmental factors and genetic predisposition may justify this disorder more efficiently (Henderson, 2012). Learning disorders cause difficulties in individuals' social, emotional and educational contexts (Freilich & Shechtman, 2010), which can only be understood under precise understanding of social, emotional and behavioral aspects of individuals' life. Among students, one of the variables that can be impaired due to dyscalculia is "Psychological Wellbeing". Psychological wellbeing is an effort regarding reaching integrity toward potential abilities of an individual (RYFF & Keyes, 1995). Much of related literature stresses that children with dyscalculia, tend to have low satisfaction toward life and low psychological wellbeing (Shalev, 2004). On a related note, dyscalculia is linked to low satisfaction from life (Koenen, Ranke & Honkoop, 2008), social anxiety and impaired social interactions (Richardson & Suinn, 1972). Given students tend to demonstrate more aggression and misbehave in class which will lead to their abandonment by others, this low self-esteem and self perception will affect their educational process in negative way (B Johnson, 2001); Lavoie (2005) states that probably impairment in social skills and social wellbeing are two most prominent problems of this group of children, since this problem will unfavorably influence other aspects of their lives. Raskind (2007) showed that these children have difficulty regarding initiating and continuing their relationships and these impairments may lead to low self-esteem, sense of loneliness, depression and other psychosocial problems, which eventually will cause suppressed psychological wellbeing.

Other psychological factor is Alexithymia, which can be probably stemmed from dyscalculia. Students with learning disorders tend to possess elevated level of social and emotional problems comparing to normal children (Auerbach, Gross-Tsur, Manor & Shalev, 2008). Literatures show that between 38% to 78% of children with alexithymia tends to have learning disorders as well (Fristad et al., 1992). Thus, one of the probable problems in children with learning disorders is alexithymia. Alexithymia is a personality construct characterized by the sub-clinical inability to identify and describe emotions in the self. Early studies indicate that an inter hemispheric

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transfer deficit among alexithymics may be one the hypothesis regarding pathogenesis of this disorder; that is, the emotional information from the right hemisphere is not being properly transferred to the language regions in the left hemisphere , as can be caused by a decreased corpus callosum. Another hypothesis which can be discusses is limbic malfunctioning (Madadi & Ghaedi, 2003).The core characteristics of alexithymia are evident dysfunction in emotional awareness, social attachment, and interpersonal relating. Moreover, individuals suffering from alexithymia also have difficulty in distinguishing and appreciating the emotions of others, which is thought to lead to unempathic and ineffective emotional responding (Besharat, 2007).Considerable data indicate that students with learning problems tend to have less consistent emotion and they have problem regarding regulating their emotions. This phenomon is less seen in normal population and these individuals tend to demonstrate more dramatic reactions when faced a normal situations (Bauminger et al., 2005). Results of former study suggest that students with learning disorders have problems in indentifying, describing and concrete thinking compared to normal students. In this context, they demonstrate inappropriate animosity, impulsive attitude, aggression, excessive self-assurance, envy and dissociability. It appears plausible that due to specific psychological attributes, behavioral problems, mood states and other psychological impairments, proper prophylaxis/interventional procedure should be facilitated regarding this group of people. According to Wagaman(2008), there is no effective medications for this group of children; though with following suitable procedures a child may be able to cope with associated problems. One of the effective methods regarding psychological wellbeing of students with dyscalculia which have not been mentioned by scholars, are Emotional Regulation Training. Emotional Regulation reffers to ability of understanding, modulating the experience and expressing the emotions (Feldman-Barrett et al., 2001; Gross, 2001, 1998).Adaptive emotional regulation tend to share a relationship with adaptation, psychological wellbeing and positive social interaction (Gross, 2002; Saarni, 1990) and elevating rate of positive experiences will lead to effective confrontation with traumatic situation (Gross, 2002) and additionally it will impact necessary actions in social interactions (Tugade & Frederickson, 2002). Reviewing literature and psychological researches demonstrate that emotional regulation is a prominent factor regarding psychological wellbeing and social interactions and flawed process of them may cause internal disorders (e.g. depression, anxiety and social isolation) and external disorders(e.g. crime activities, behavioral aggression). According to Jill(2002) and Schnitzer and Colleagues(2007), cognitive intervention may be effective regarding boosting intellectual ability of students with dyscalculia regarding hypothesizing and understanding humor in social interactions (Diefendorff, Richard & Yang, 2008). Furthermore, group emotional intervention maintain a positive effect on reducing self harm attitude and reducing depression signs, anxiety and stress (Gratz K & Gunderson, 2006).According to aforementioned necessities, current study is trying to answer to this question: Is teaching emotional regulation techniques is effective regarding elevating psychological wellbeing and reducing alexithymia in students with dyscalculia?

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MATERIALS AND METHODS

The design of this study was experimental with pretest-posttest. In current study, alexithymia and psychological wellbeing considered as dependent variables and emotional regulation and no-teaching (Control group) considered as active independent variables. Hence variables of this study are as mentioned below: **Independent variable:** Teaching emotional regulation techniques; **Dependent variables:** Alexithymia and psychological wellbeing; **Control variables:** Forth, 5th and 6th grades of primary school; **Mediating variable:** Gender.

Statistical Society, Sampling method and Sample size: Statistical society of current study consisted of all the students with dyscalculia (Forth, 5th and 6th grades) in a primary school located in Bileh town (Urumieh Province/Iran) during 2014-2015 (N=76). Current sample consisted of 32 students having dyscalculia who were chosen via systematic random sampling. It is worth mentioning that sample size in experimental design would suffice as minimum 15 individuals for each subgroup (Cohen, Manion & Morrison, 2007). Although, in current study, due to probability of recession in number of sample, we decided to allocate 16 individuals for each group (n=32) which is demonstrated on Table-1:

Group	Frequency	Percentage
1st Group: Emotional Regulation Intervention	16 students(boy and girl) with Dyscalculia(n=16)	50%
2nd Group: Control Group	16 students(boy and girl) with Dyscalculia(n=16)	50%
Total	32	100%

Table-1 Frequency and Percentage of case-group/contro-group

Inclusion Criteria: Average IQ or higher; Educational level (Forth, 5th and 6th grades); No history of mental illness(e.g. MR) or acute disease; Not being diagnosed as ADHD; Not using drugs at least 6 months prior to current study; Nonexistence of co morbid situation(e.g. dysgraphia).

Exclusion Criteria: Child being in cooperative or his/her family during study; Restlessness of child during steps of current study; Dyscalculia due to sensory impairments; Dyscalculia due to environmental/cultural/educational deprivations.

Tools: In current study we used below mentioned questionnaires for gathering data:

Shalev Math test: This test was designed by Shlalev and Colleagues(1993) based on numerical processing model of McCloskey, Caramazza & Basili in 1985 (quoted by Barahmand et al., 2007) and it was used vastly with respect to diagnosing dyscalculia. It contains three sections: 1. Numerical understanding: Consisted of 8 subtests about counting, understanding, matching, reading numbers, writing numbers alphabetically or as numbers' symbols, comparing numbers, using mathematical symbols; 2. This section is about producing numbers and it is consisted of

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subtests, which examines simple(one digit) summation, subtraction, division and multiplying. 3. This section is about numerical calculation. Total score of this subtest is 100. Validity of this test estimated 0.92 among 703 individuals as sample (Shalev et al., 2005).In Iran, Barahmand and Colleagues (2005) estimated validity coefficient of this test via chronbach's alfa as 0.95. Criterion score regarding diagnosing dyscalculia in students (6th grade) was 34/68 ((quoted by Barahmand et al., 2007).

Raven IQ Test:

The tests were originally developed by John C. Raven in 1936 in the UK in order to assess IQ between 9-18 years old. It is consisted of 5 items (each items have 12 questions). Internal consistency coefficient and retest validity coefficient assessed as mean of mean of 0.90 and 0.82 respectively. Correlation of this test with Wechsler, Goodenough test, Stanford-Binet and Proteus maze estimated to be in a range of 0.40 to 0.75. Correlation of this test announced to be more with nonverbal test. In this study, individuals with IQ higher than 90 were chosen (Raven et al., 2003).

The Ryff Scales of Psychological Well-Being:

Ryff designed this test (1989) in Medical School of Wisconsin University and it was revised in 2002 (Hosser and Colleagues).The Ryff inventory consists of either 84 questions (long form) or 54 questions (medium form). There is also a short form, but it is statistically unreliable and therefore should not be used for assessment. Both the long and medium forms consist of a series of statements reflecting the six areas of psychological wellbeing: autonomy, environmental mastery, personal growth, positive relations with others, and purpose in life, and self-acceptance. Respondents rate statements on a scale of 1 to 6, with 1 indicating strong disagreement and 6 indicating strong agreement. Ryff (1989), estimated internal consistency coefficient of this test as 0.91. Validity of this questionnaire claimed to be 0.81 in Michaeli (2009) study. In current study, internal consistency coefficient is 0.87.

Toronto Alexithymia Scale 20(TAS-20):

TAS (Bagby et al., 1994) is compromised of 20 questions and it assesses three subscales of ¹DIF (Difficulty Identifying Feeling), which has 7 questions, ²DDF (Difficulty Describing Feelings), which has 5 questions, ³EOT(Externally Oriented Thinking), which has 5 questions. Items are rated using 5-point Likert scale whereby 1=Strongly disagree and 5=Strongly agree. The total Alexithymia score is sum of all responses to all 20 items (Bagby et al., 1994). In Farsi version of TAS-20 (Besharat, 2007), Cronbach's alpha regarding total score of Alexithymia and 3 subscales (DIF, DDF, EOT) estimated as 0.85, 0.82, 0.75, and 0.72 respectively, which showed proper internal consistency of this scale. Retest validity of this scale in a sample of 67 individuals in period of 2 weeks was confirmed as $r=0.80$ and $r=0.87$ regarding total score of Alexithymia and subscales respectively. Synchronic Reliability based on Pearson correlation coefficient between Alexithymia and emotional quotient, Alexithymia and psychological wellbeing, Alexithymia and

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psychological helplessness were confirmed and assessed as ($r=0.80$, $P<0.001$), ($r=0.78$, $P<0.001$) and ($r=0.44$, $P<0.001$) respectively.

Independent Variable: Teaching methods of Emotional Regulation

Emotional regulation training takes approximately 8 sessions and each session lasts 90 minutes.

First Session: Conducting pretest, maintaining rapport, conceptualizing and explaining the necessity of teaching these techniques

Second Session (Main focus is on how be aware of positive emotions): Brief review of former session, Teaching techniques of maintaining and being aware of positive emotions and its type (e.g. happiness, love), how to attend positive emotions and how to visualize them (e.g. visualizing happy event), homework regarding writing about our main positive emotions and writing it on relevant form.

Third Session (Main focus is on how be aware of negative emotions): Brief review of former session, Teaching techniques of maintaining and being aware of negative emotions and its type (e.g. anger, disgust), how to attend negative emotions and how to visualize them (e.g. visualizing anxiety inducing event), homework regarding writing about our main negative emotions and writing it on relevant form.

Forth Session (Teaching methods of accepting the positive emotions): Brief reviews of former session, acceptance of positive emotions without judging the level (High/Low) of them and their positive/negative consequences, homework regarding parents or friends ideas about level (High/Low) of positive emotions and writing them on relevant form.

Fifth Session (Teaching methods of accepting the negative emotions): Brief review of former session, acceptance of negative emotions without judging the level (High/Low) of them and their positive/negative consequences, homework regarding parents or friends ideas about level (High/Low) of negative emotions and writing them on relevant form.

Sixth Session (Teaching reassessment techniques and expressing positive emotions): Brief review of former session, teaching psychological experience of positive emotions via visualization (e.g. happiness, love), psychological inhibition and teaching proper expression methods.

Seventh Session (Teaching reassessment techniques and expressing positive emotions): Brief review of former session, teaching psychological experience of negative emotions via visualization (e.g. anger, anxiety), inhibiting unsuitable expression of these emotions.

Eighth Session: Concluding training sessions and conducting posttest.

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Procedure: After getting acceptance of authorities, we referred to primary school located in Bileh town (Urumieh Province/Iran). Although, teachers of the school confirmed dyscalculia of students, for reassurance we conducted Shalev Math test, raven IQ test and Toronto Alexithymia scale. Then, via systematic random sampling method and with mentioning distribution frequency of boy and girls and their educational stage, sample was chosen. In next step, tools of gathering data were conducted as pretest and after that, 8 interventional sessions were hold in case group and 8 normal sessions (included routine conversation) were hold in control group. By the end of sessions, posttest was conducted among both case and control groups. At last, all gathered data were analyzed with SPSS16 and via MANCOVA.

Analyzing data procedure:

In current study, in additional to implementing descriptive statistical tests (e.g. Frequency, mean and SD), MANCOVA was used. Additionally, with respect to noticing pre-hypotheses of MANCOVA; one-sample Kolmogorov Smirnov test was used and for assessing the equality of variances, levene's test was used and BOX tests were used for assessing congruity of covariance.

RESULTS

According to finding data, among students with dyscalculia, 31.25%(5 individuals) were 4th grader, 37.5%(6 individuals) were 5th grader and 31.25%(5 individuals) were 6th grader. Regarding control group, 37.50%(6 individuals) were 4th grader, 43.75%(7 individuals) were 5th grader and 18.75%(3 individuals) were 6th grader.

Alexithymia's Components		Case-Group		Control-Group	
		Mean	SD	Mean	SD
Difficulty Identifying Feeling (DOF)	Pretest	27/31	3/32	26/93	1/73
	Posttest	13/06	2/29	26/43	2/39
Difficulty Describing Feelings (DDF)	Pretest	27/50	2/36	26/56	2/42
	Posttest	27/50	2/36	26/56	2/42
Externally Oriented Thinking (EOT)	Pretest	20/62	2/15	19/93	2/51
	Posttest	10/43	2/22	19/78	2/33

Table-No1 Mean and SD of Alexithymia's components in Pretest and Posttest stages

According Table-No1, mean and (SD) of posttest in Case group are as mentioned below:

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1.Difficulty Identifying Feeling (DOF): 13.06(2.29); 2.Difficulty Describing Feelings (DDF): 27.50(2.36); 3.Externally Oriented Thinking (EOT): 10.43(2.22).

Psychological Wellbeing's components		Case-group		Control-group	
		Mean	SD	Mean	SD
Autonomy	Pretest	15/00	2/33	15/00	2/78
	Posttest	29/43	3/11	15/75	3/13
Environmental Mastery	Pretest	14/81	2/61	15/62	3/36
	Posttest	36/56	2/44	15/50	4/78
Personal Growth	Pretest	15/31	2/52	14/37	3/81
	Posttest	26/56	3/09	14/75	3/12
Positive relations with others	Pretest	14/62	2/62	15/62	3/26
	Posttest	26/43	2/42	15/00	4/87
Purpose in Life	Pretest	15/00	2/33	14/27	3/71
	Posttest	23/43	3/11	15/57	3/31
Self-acceptance	Pretest	14/81	2/61	15/00	3/41
	Posttest	26/65	2/44	15/05	3/78

Table-No2 Mean and SD of psychological wellbeing's components in Pretest and Posttest level

As it can be seen in Table-No2, mean and (SD) of post-test in case-group is as mentioned below:
1.Autonomy: 29/43(3.11); 2.Environmental Mastery: 36.56(2.44); 3. Personal Growth: 26.56(3.09); 4. Positive relations with others: 26.43(2.42); 5.Purpose in Life: 23.43(3.11); 6.Self-acceptance: 26.65(2.44)

In order to assess the similarity of variances, Levene's test was implemented and results showed that level of (F) is not meaningful for any components of current study ($P \geq 0.005$); so it is plausible that variance error of these variables between case-group and control-group does not differ. Furthermore, regarding assessing similarity of covariance, BOX test was conducted and results showed that difference is not meaningful ($P=442$, $F=0.973$, $BOX=6.973$).

Source	Test	Value	F	df hypothesis	df error	P	Eta
Group	Pillai's trace	0/917	92/15	3/00	25/00	0/000	0/917
	Wilk'sLambada	0/083	92/15	3/00	25/00	0/000	0/917
	Hattling Effect	11/05	92/15	3/00	25/00	0/000	0/917
	Error largest Root	11/05	92/15	3/00	25/00	0/000	0/917

Table-No3: Results of validity indexes of meaningfulness test of MANCOVA on

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Components of Current study

According to Table-No3, meaningfulness levels of all tests justify applicability of MANCOVA. This assessment shows that there is a meaningful difference, at least regarding one of dependent variables between case-group and control-group. In order to identify the component (Alexithymia/Psychological wellbeing), which caused a meaningful difference, we used MANCOVA. Details are shown on Table-No4.

Source	Dependent Variable	Components	SS	df	MS	F	P	Eta
		Difficulty Describing Feelings (DDF)	1003/83	1	1003/83	146/01	0/000	0/844
		Externally Oriented Thinking (EOT)	708/03	1	708/03	153/97	0/000	0/851
	Psychological Wellbeing	Autonomy	2809/94	1	2809/94	250/00	0/000	0/912
		Environmental Mastery	2897/70	1	2897/70	175/64	0/000	0/880
		Personal Growth	2745/24	1	2745/24	205/07	0/000	0/668
		Positive relations with others	2920/94	1	2920/94	174/79	0/000	0/879
		Purpose in Life	2890/44	1	2890/44	255/00	0/000	0/914
		Self-acceptance	2879/70	1	2879/70	157/46	0/000	0/725

Table-No4: MANCOVA results on components of variables

As it can be seen on Table-No4, there are meaningful differences in significance level of ($P \leq 0.0001$), between case-group and control-group with respect to DOF,DDF and EOT. In other word, it can be inferred that mean of DOF, DDF and EOT in case tend to differ comparing to control group due to emotional regulation training intervention.

Additionally, there are meaningful differences in significance level of ($P \leq 0.0001$), between case-group and control-group with respect to Autonomy, Environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. Thus, it can be concluded that emotional regulation training intervention had a major role in causing difference between case-

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group and control-group.

DISCUSSION AND CONCLUSION

Main purpose of current study was to assess the efficacy of teaching emotional regulation techniques on alexithymia and psychological wellbeing of students with dyscalculia. According to MANCOVA results, there was meaningful difference with regard to three levels of alexithymia (DOF, DDF and EOT), between case-group and control-group. Hence, its plausible that teaching emotional regulation technique is efficient in reducing alexithymia among students diagnosed with alexithymia. These results are consistent with the results of the study conducted by Gratz and Gundersoon, 2006; Skinters et al., 2007; Dayfanr of et al., 2008; Martini and Bosseri, 2010). As Dayfanrof's (2008) shows that emotional regulation techniques has a positive correlation with decrease in negative emotions and focusing of positive emotional regulation techniques will elevate understanding of individuals in managing their emotions. Furthermore, it can be helpful in identifying aggression, fear, humility and sadness and accordingly regulating the emotions (Yoo et al., 2006). Additionally, group intervention may provide positive impact on self-harm attitudes, borderline personality disorder, depressive symptoms, anxiety and stress (Gratz and Gundersoon, 2006). Jill (2002), Skinters et al., 2007 and Andrise and laber (2007) claimed in their studies that cognitive interventions maintain a positive influence regarding elevating understanding, modifying difficult attitudes of children with dyscalculia. They believe that these interventions are prominent factors in boosting thinking power of students regarding hypothesizing and understanding humor in social interactions. Study conducted by Martini & Busseri (2010) suggests that negative emotional regulation techniques are predictive of negative emotion, low satisfaction and vice versa.

Furthermore, regarding second dependent variable, results of MANCOVA showed that among students with dyscalculia in both case and control groups; there is meaningful difference regarding autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self acceptance. As introducing emotional regulation techniques cause positive effects among psychological wellbeing's components in case group comparing to control. Hence, second hypothesis of this study is confirmed. Current results are consistent with the results of the study conducted by Gross & John (2003); Quoidbach and Colleagues (2010); Nykliček and Colleagues (2011); Sylvester (2012). Quoidbach and Colleagues studied effect of emotional regulation techniques on psychological wellbeing (reducing distress, life satisfaction) and they demonstrated that telling someone (sharing positive event with someone) will lead to life satisfaction and involvement with positive rumination will lead to distress reduction. Sylvester (2012) showed that positive effects on psychological wellbeing will lead to improvement in physical wellbeing. Gross & John(2003) claimed that different approach to emotional regulation will lead to difference psychological, emotional and social states among individuals.

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In confirming the results of current study, it can be inferred that emotional regulation is process of modulating one or various aspects of experiences with specific emotional responses (Gross, 1998). Emotional regulation plays a major role in psychological wellbeing (Nykliček et al., 2011). Emotional regulation considered being prominent factor in proper functioning and implementing maladaptive methods would lead to negative consequences such as low psychological wellbeing (Gross & Muñoz, 1997) and even somatic problems (Gross & John, 2003; Denollet et al, 2008). Emotional regulation and psychological wellbeing are concepts, which are connected and entangled in various ways. Same brain regions are aroused with respect to aforementioned concepts, which play major role in interaction with other individuals. These two concepts cause dramatic impacts on psychopathology, social isolation and somatic symptoms (Nykliček et al., 2011).

In some forms of psychopathology such as emotional disorder or personality disorders, role of emotional regulation has been highlighted (Gross & Muñoz, 1997). Furthermore, psychological interventions such as CBT and DBT have been used regarding emotional regulation and they have founded to be effective in reducing problematic symptoms (Linehan, 1993).

Nevertheless, current study examined which approach to emotional regulation is effective and some studies showed that some of the emotional regulation techniques are effective with respect to psychological wellbeing (Nykliček et al., 2011). One the methods which was used in current study was emotional inhibition which is intentional inhibition of an emotion by the time of emotional arousal (Gross, 1998). In clear sense, this method can be used in different societies in social interactions. In contrast, some studies discuss role of emotional inhibition in decreasing positive emotions (Gross & Levenson, 2007), impaired interpersonal function (Butler et al., 2003) and decreased psychological wellbeing (Gross & John, 2003). In addition, this method may boost rumination about negative emotions (Gross & John, 2003). Although, rumination and worrying may cause a distraction regarding emotional experience (Roemer et al., 2009). Some evidences suggest that there is close relationship between emotional inhibition and activating sympathetic nervous system which may led to Cardio vascular diseases (Butler et al., 2003). In this sense, mentioning one exception seem to be vital, both expressing and inhibition of anger in excessive way may lead to cardio vascular diseases (Nykliček, I., 2011).

One of the limitations, which can be discussed regarding this study, is that no interview was conducted regarding diagnosis of dyscalculia among students. Another limitation was not controlling educational and financial status of parents. Another limitation worth mentioning is ADHD as common comorbid situation with LD.

It is advised to hold follow up sessions regarding long-term assessment of emotional regulation training procedure. Due to substantial effects of dyscalculia on various aspects of students' life, interventional programs should be facilitated and they should be followed precisely by authorities.

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Authors' contributions

ES and MH conceived and designed the evaluation and they conducted whole process of this study. MBM collected and interpreted the clinical data and drafted the manuscript. All authors read and approved the final manuscript.

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Declaration of interest

None declared

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Cognitive Styles as Predictors of Managerial Effectiveness: A Study of Private Sector Managers from Manufacturing Industries

Dr. Ishita Chatterjee¹, Sravasti Dey²

Keywords: *Predictors, Private Sector, Manager, Manufacturing Industries*

One of the advantages, the Indian Industries had, was the quality combined with low cost. In recent years, this advantage is waning away because of the invasion of World market by cheaper products from China (Seetharama, 2012). This challenge can be overcome by producing quality products at reduced costs, which in turn requires faster and efficient design, manufacturing methods and effective managers for monitoring.

Cognitive style is described as the way individuals imagine, perceive, distinguish, recognize, think and remember information (Rishipal, 2012). It is a persisting habitual pattern of perceptual and intellectual activity. With the help of cognitive styles an individual acquires knowledge (cognition) and processes information (conceptualization).

Different types of studies and research have been conducted recently to evaluate the impacts and effects of cognitive styles and competencies on predicting organizational behavior, performance and results (Jamshidi, Khosravi, Harirchian, Samadi, 2014). Cognitive style's assessment is useful in prediction of learning in job training (Jamshidi, Zeinshavzi, Ghasemi, 2012). Cognitive theory has revealed means of which individuals can be more resilient in ways of processing information (Ahangar, 2010). In a study in Malaysia it was found a correlation between resilience and cognitive styles – among two different generations, it was considered vital because understanding cognitive styles may lead individuals to develop accurate beliefs about the World and appropriate strategies may result in valuable resilience resources (Zamani, Nasir, Sulaiman, Khairudin, Halim, 2014). Cognitive styles are linked to mental behaviours, habitually applied by an individual for problem solving, and generally the way that information is obtained, sorted and utilized. Cognitive style being the recurring perceptual and intellectual pattern of personality which can influence attitudes, values and social interaction (Rishipal, 2012). Cognitive style has been found as an important human – related factor for project managers, contributing to their soft skills (Esa, Alias, and Samad, 2014). Cognitive styles affect not only higher order cognitive processing but also perception and attention (Kozhevnikov, Evans, and Kosslyn, 2014).

¹ Assistant Professor, Department of Applied Psychology, University of Calcutta.

² Research Student, Department of Applied Psychology, University of Calcutta.

MANAGERIAL EFFECTIVENESS:

Increasing competition around the globe requires a cadre of effective managers for operations in their organizations. The traditional model of managerial effectiveness emphasizes the ability to set and achieve goals where it is implicitly assumed that managerial effectiveness leads to organizational effectiveness. In the context of an employee's specific role within an organization, managerial effectiveness is a product of the individual's effective or ineffective work – related behaviors (Page, Wilson, Meyer and Inkson, 2003).

Effective managers, similar to effective organizations, need to simultaneously manage a multitude of relationships with individuals and groups affected by their actions and behaviours. Managerial effectiveness has been measured in terms of three components – 1) Productivity: which included production output and services, optimum utilization of resources, problem anticipation and management of unforeseen consequences, adaptation of new method of doing work. 2) Adaptability: it is acceptance of changes made in the system of organization, adjustment to new work environment. 3) Flexibility: it includes quality of service and products, cope with emergencies more readily and successfully (Bamel, Rangnekar, and Rastogi, 2011).

Effectiveness involves doing the right things in the right way. Effectiveness is particularly important in the case of managers as they are responsible for the performance of others (Ali and patnaik, 2014).

Zhang (2010) investigated the characteristics of organizational climate and its effect on organizational variables. He pointed out that organizational climate had significant main effects on human resources management effectiveness.

Catherine and Cherly (2007) revealed that organizational culture was strongly perceived as being related to both leadership effectiveness (explaining 40% of the variance) and personal effectiveness (24% of the variance).

Managerial effectiveness is very important for the survival and growth of the organization. A review of literature shows that managerial effectiveness has been studied with three perspectives – Traditional/ Conventional Perspective, Organizational Level Competency Based Perspective, and An Individual Level Competency Based Perspective.

A manager should have a combination of technical, interpersonal and conceptual skills that can make him an effective manager (Rishipal, 2012).

Effectiveness of executives is very important for the success of an organization in the contemporary business arena (Bao, 2005). Executives employ their competencies and enhance the economic value of raw resources to play a crucial role in the development and execution of

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organizational operations and effectiveness of the implemented strategies / policies (Analoui, 2007).

Managerial Effectiveness depends on a number of factors like individual's perception, personality, superior subordinate relation, working style, trust facilitation, way of thinking & processing information and surrounding organizational climate (Sternberg, R.J., & Zhang, L.F., 2001). Most of these factors of managerial effectiveness are element of cognitive style also, so there might exist a relationship between Managerial Effectiveness and cognitive style which should be investigated and understood. There has not been sufficient research to investigate the relative importance of different facets of cognitive style in predicting managerial effectiveness. So far, little has been done about whether there is a genuine relationship between cognitive style and managerial effectiveness.

METHODOLOGY

Objectives:

1. To study the difference in overall management style among the Junior level Managers and Middle level Managers.
2. To study the significance difference between Junior level Managers and Middle level Managers with respect to cognitive styles (Systematic Cognitive Style and Intuitive Cognitive Style).
3. To study the relationship between the Cognitive Styles and three dimensions of Managerial Effectiveness.
4. To study if Cognitive Styles (Systematic Cognitive Style and Intuitive Cognitive Style) would positively predict the three dimensions of Managerial Effectiveness (Productivity, Adoptability, and Flexibility).

Description of the Tools:

1. The Cognitive Style Inventory: This inventory is constructed and published by Pfeffer Library, 1998 which consists of 40 statements half of each pertains to Systematic Style and half to Intuitive Style. Respondents evaluate each statement according to the degree to which they agree with it. The Cronbach's alpha was found to be 0.69 and 0.73 respectively for the present sample. The inventory has adequate face validity.
2. Index Managerial Effectiveness Scale: This scale was adopted from Mott, 1971 by Bamel, Rangnekar and Rastogi in 2011. Eight items were grouped into three factors – Productivity (production output, optimum utilization of resources and adaptation of new method of production), Adoptability (quality, problem anticipation and acceptance of changes), and Flexibility (adjustment to the new situation and copes with emergencies readily and successfully). The Cronbach's alpha was found to be 0.78, 0.69 and 0.78 for Productivity, Adoptability and Flexibility. The scale has adequate face validity.

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Sample:

A sample of 72 Junior Level Managers and 78 Middle Level Managers from 8 private Manufacturing Industries was taken for the study. The private manufacturing companies were located in Bihar, Jharkhand, and West Bengal. The Educational Qualification was Graduation in Engineering to Masters in Engineering with Management Degree or Diplomas. Working Experience in Manufacturing Industries for at least 5 years. Age ranged from 40 to 50 years.

RESULT

Table 1.1: Mean and SD of the scores in Cognitive Style and Managerial Effectiveness.

	Systematic Style		Intuitive Style		Managerial Effectiveness	
	Mean	SD	Mean	SD	Mean	SD
Junior Managers	72.50	5.57	71	6.35	29.36	3.38
Middle Managers	74.50	5.90	73.20	6.44	30.30	4.45

This table reveals a moderate level of Managerial Effectiveness of both Junior and Middle Managers.

Table 1.2: t value between Junior and Middle Managers

Systematic Style	Intuitive Style	Managerial Effectiveness
1.45	1.48	0.95

This table reveals low significance difference among Junior and Middle Managers with respect to Cognitive Styles (Systematic Style and Intuitive Style) and overall Managerial Effectiveness. Since t – value was insignificant; rest of the statistical analysis was done by combining the data.

Table 2: Bivariate Correlation between Cognitive Styles and Managerial Effectiveness

	Systematic Cognitive Style	Intuitive Cognitive Style
Productivity	0.48**	0.68**
Adoptability	0.53**	0.26*
Flexibility	0.51**	0.28*

This table reveals a significant correlation between Cognitive Styles and three dimensions of Managerial Effectiveness, i.e., Productivity, Adoptability, Flexibility. Systematic Cognitive Style was more significantly related to Adoptability followed by Flexibility and Productivity respectively, while Intuitive Cognitive Style was highly related to Productivity and showed low relationship with Adoptability and Flexibility.

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Table 3.1: Linear Regression Analysis for Productivity

Variables	β	t	Significance Value	R	Adjusted R^2	Value with Significance
Constant		3.488	0.001	0.344	0.062	2.076*
Systematic Cognitive Style	0.270	2.35	0.02			
Intuitive Cognitive Style	0.356	2.58	0.017			

This table reveals that both Systematic Cognitive Style and Intuitive Cognitive Style were positive predictors of Productivity.

Table 3.2: Linear Regression Analysis for Adoptability.

Variables	β	t	Significance Value	R	Adjusted R^2	Value with Significance
Constant		2.98	0.01	0.323	0.057	2.86**
Systematic Cognitive Style	0.36	2.58	0.01			
Intuitive Cognitive Style	0.19	1.02	Not significant			

This table reveals that Systematic Cognitive style was a positive predictor of Adoptability, while intuitive style was not a significant predictor.

Table 3.3: Linear Regression Analysis for Flexibility.

Variables	β	t	Significance Value	R	Adjusted R^2	Value with Significance
Constant		2.95	0.01	0.223	0.443	2.043*
Systematic Cognitive Style	0.37	2.78	0.01			
Intuitive Cognitive Style	0.143	0.983	Not significant			

This table reveals that Systematic Cognitive style was a positive predictor of Flexibility, while intuitive style was not a significant predictor.

DISCUSSION:

Leadership is widely considered to be an important aspect of organizing and there are several reasons to suggest that managerial styles are of particular relevance in this context. However, there is a dearth of both theoretical and empirical work on leadership styles and their subsequent effects on middle managers' organizational commitment, their job satisfaction, their communication and their managerial effectiveness. The factors of Managerial Effectiveness are also element of Cognitive Style. So there might exist a relationship between Managerial Effectiveness and Cognitive Style, which was investigated for understanding.

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Here it was found that both Systematic Cognitive Style and Intuitive Cognitive Style were significantly and positively correlated with Managerial Effectiveness.

Intuition can be defined as the skill to capture a thought or to formulate a decision about motivation properties without being capable to submit plainly to the information or inference as core to the result (Chau, Schacter & Sperling, 2008). Basing a decision upon intuition is perceived to be mostly in contrast to rationality and devoid of veridical knowledge. Therefore Intuitive Cognitive Style has not been able to predict Flexibility and Adoptability dimensions of Managerial Effectiveness. Intuitive Cognitive Style is a personal style of information processing and decision – making attributed to novelty and excitement in contrast to stability and safety. Thus the style fails to predict Flexibility and Adoptability. Intuitive Cognitive Style Managers can decide rapidly with very limited information. Therefore they can decide strategies and take decisions related to production. But here a question lies as to the reliability of their intuitions, not much research has been done in this area. Individuals should be encouraged to use both analytic and intuitive style in decision making for optimum results (Syagga, 2012).

In Systematic Cognitive Style people apply rule – based thinking, allowing them to go through a systematic process. Thus they are more objective in their approach in contrast to intuitive style which is more subjective; they can easily adapt and can be more flexible. Individual differences in Cognitive Style are also a very common phenomenon (Poore, Forlines, Miller, Regan and Irvine, 2012).

The findings go somewhat in line with an early experiment of Sagiv, Amit, Ein – Gar, and Arielis (2013), who found Intuitive Style persons did not show any improvement in rule – based performance. Systematic Style was positively correlated with conscientiousness and security values and negatively correlated with stimulation values. The Intuitive style had opposite pattern and was also positively correlated with Extraversion. Cognitive Style is consistent with other personal attributes (Traits and Values), with implications for decision making and task performance. Kumar and Nagarjun (2014) in an Indian Sample also found that cognitive style varies with the management type and value system has a bearing on the Cognitive Style.

IMPLICATION:

The study will help the managers to identify their cognitive styles and relate to the different aspects of Managerial Effectiveness. So as to design and prescribe different developmental strategies that can enhance Managerial Effectiveness and decision making for proper selection and recruitment. To increase flexibility in various problem solving situations and improve the interaction between individuals and groups. Effective Management is important because:

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- Good managers are the key to a more competitive economy and higher performing enterprises
- Job creation depends on better management skills
- Must improve to meet today's world best practice standards and the challenges of the Asia-Pacific century

LIMITATION AND SUGGESTION:

Because of limited resources, sample size was inadequate. If a larger sample could be taken and more areas and industries would be covered, the sampling error would be much reduced and scope for generalization could be increased.

More work can be taken for exploring the reliability of Intuitive Style and taking people with other Cognitive Styles like Split Styles and Undifferentiated Styles and study their relation to Managerial Effectiveness. This study could be extended to other sectors other than manufacturing.

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Effect of Some Yogic Practices on Aggression Level among College Girls

Pammi Singh¹

ABSTRACT

This study was aimed at examining the effect of some yogic practices (Surya Namaskar, Anulom-Vilom Pranayama) on aggression level of adolescents. For this, 30 adolescents were conveniently selected from Dev Sanskriti University, Haridwar who were studying B.A. And B.Sc. First year 2015 and were randomly assigned into experimental groups. Yogic practice was allowed among participants for 25 days (from 15-Feb-10 March 2015). Measurement of pre and post logical memory of participants was made by using aggression Scale developed by Km. Roma Pal. Result showed statistically significant decrease (89.13-73.26, observed t- value = 9.62) in post anxiety level of participants on 0.01 level of significance.

Keywords: *Anulom-Vilom Pranayama, Surya Namaskara, aggression*

The world Health Organization defines adolescence as the period of life between 10 and 19 years of age (www.wikipedia.com). Adolescence (Adolescence=to grow) is a transitional stage of physical and mental human development that occurs between childhood and adulthood.

Adolescence is a rapid period of rapid body growth and psychological development marked by a strong trend towards individuation in other words, the process of defining one's self as an individual.

Adolescence is a risky period opportunities for developing a wide variety of psychophysiological problems. (Erikson 1963). Adolescence is the period of physical, cognitive, social and emotional development. Teenager's experiences a period of relatively drastic social and biological and adulthood, it only stands to reason that teen stress would take on a unique character corresponding to the specific changes experienced during that period.

One pole of the adolescent crisis is identity. Identity means an integration of all previous identification and self images; including the negative ones (Erikson quoted in even 1976 p.279). Continuity is an important term in the conception of identity. Identity problems for teens are in part of related to their historical era In some cases it is seen that adolescence is a period of stress and unhappiness. Adolescence is the age in which several physical as well as emotional changes,

¹ Research Scholar, yoga Dept. Mahatma Gandhi Chitrakoot Groamodaya University Chitrakoot, Satna, MP

cognitive changes take place this is the age for the child to snap and to form a good personality. These changes may guide or even misguide them to develop behavior.

Yoga practices enhance the creative power of adolescents. Yoga offers a fine tool for the development of the emotional personality adolescents.

Yoga practices like Surya Namaskar and Anulom-Vilom Pranayama can bring comprehensive development to the intellect.

Surya Namaskar is the combination of asana and pranayama. It maintains physical as well as emotional state of person. During adolescence period it is so good practice because it maintains hormonal changes and uncontrolled emotions.

Dr. Crisan (1980) studied the effect of 4 weeks of pranayama practice in 19 cases of carefully diagnosed cases of general anxiety and showed statistically significant reduction in their anxiety scores, pulse rate and BP.

Anulom-Vilom is very powerful pranayama. Through this pranayama one can control very sharply his body and mind. Physical activities play an important role in the management of mild to moderate mental health diseases especially frustration, aggression and anxiety. This yogic package Namaskara & Anulom-Vilom pranayama is very helpful to maintain peace, calm, and pleasant mind.

REVIEW OF LITERATURE

Joshi, B.P. (2003):- The present work is aimed to study of Kapalbhathi, Vaman and Bhramari pranayama on college going students (age group 18-25 years) of J.S. Sanskrit Mahavidyalaya, Saptrishi ashrama, Haridwar. Total sample were 40 males. by statistical analysis it has been observed that there is a significant relationship between the practice of Kapalbhathi, Vaman and Bhramari and Hemoglobin, E.S.R., F.V.C., physical and mental health. All the psychological and physiological tests were measured in Brahmavarchas research centre, Shanti kunj, Haridwar.

Nandi. S.A.H. & Bera. T.K. (2003): Reported the effect of selected aerobic exercise and yogic practices or the effect of both on cardio-respiratory endurance. 80 school boys (9th and 10th) were randomly selected and then subdivided into 4 equal groups (n=20 in each group). Three training programs viz, aerobic exercise, yogic practice and combination of aerobic exercise and yogic practice, were randomly allotted to 3 groups, where the remaining one group studied as control. The performances on cooper's test (12 minutes Run-walk) of all the groups were recorded before and after the 12 weeks training programs. Result reveals that aerobic exercise group showed greater cardio-respiratory endurance ability.

Pathak, S. (2006):- The aim of the present investigation is to study the effect of Navdivasiya sadhana satra on anxiety, depression and guilt. The sample consists of 60 males and females which was taken by quota sampling. The results show that navdivasiya sadhana satra, its

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programme and the ecology of Shantikunj significantly reduces the level of anxiety and depression.

Singh, V. (2008):- The aim of this research study was to observe the effect of Anulom-Vilom pranayama on blood Hb of the subjects with the age 20-40 years. For this 40 subjects composed of 20 male and 20 female were drawn from Yug-Shilpi training participants on Shantikunj, Haridwar in November, 2003 by using simple random sampling without replacement. Pre-post data were reported before and after intervention of Anulom-Vilom pranayama for 30 days by using sabil's haemometer. Calculated t-value 6.625, 7.665 and 23 for total, female and male subjects are significant at $P < 0.0025$ for df 39, 19 and 19 respectively. The result met concludes that Anulom-Vilom pranayama plays positive significant role to enhance blood Hb of the subjects.

Sharma, V. (2003):- She has conducted a project "Effect of Surya Namaskar on anxiety". The result predicted that surya Namaskar effects significantly at the level 01.

METHOD

Research design:- pretest-posttest research design.

Sample & Sampling:- In the present study, the researcher had used quota sampling the researcher has taken new admission girls of DSVV there ages were from 18-20 years.

Procedure:- The basic aim of taking new admission girls was simply that they to "Yogic Practices" on a daily basic. There are 30 subjects were taken into the practiced of **yogic package (Surya namaskar & Anulom-Vilom)** for 25 days for the duration of **30 minutes** per day in the morning time in 6.am to 6.30am. The data obtained from the pre and post test are statistically analyzed by using t-test.

The surya namaskar and pranayam "ANULOM-VILOM PRANAYAMA" the process of pranayam consist three phages PURAK, RECHAK & KUMBHAK" i.e. called inhalation, exhalation.

Prayer	:	Gayatri mantra, Guru vandana
Surya Namaskar	:	3 Round
Pranayama	:	3 Round

Tool: Aggression Scale Scaled by : Km. Roma Pal (1983)

Hypothesis: In this study directional Hypothesis is used.

There is significant effect of practice of yogic package on the level of aggression.

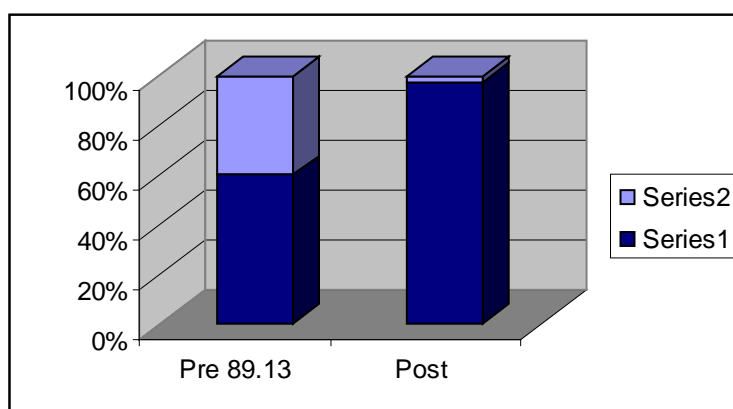
RESULT TABLE

Statistical Analysis:- t-test has been used to analysis the results.

Mean

Group	Mean	SD	SE _D	N	r	Df	T-value	Level of significant
Pre 89.13	2.48	1.65	30	0.76	29	9.62	0.01	
Post	73.26	2.14						

Graphical representation of Table



This it is found that the pre mean and post mean value of the group in 89.13 and 73.26 and the t-value received is 9.62 which is significant at 0.01 level of significance.

INTERPRETATION

In the present study “The effect of some yogic practices on aggression level among adolescents” has significant effect.

Statistically it is found in table shows that level of aggression has significance difference among adolescents In the aggression scale scoring pattern indicates that there is high score means aggression is high and low score means low aggression. Subjects obtained high mean score- 89.13 in pretest and 73.26 mean score in post-test second hypotheses has been rejected at 0.01 levels that shows more difference in the level of aggression among adolescents. Graph shows clearly the aggression level. This study is applied on adolescents and their psychological aspects.

Adolescence is the period of physical, cognitive, social and emotional development. In this period changes occur such as physical, emotional as well as socially. They cannot express their feelings clearly. These changes show in their behavior. This behavior confects creates aggression and due to this type of behavior they loose their confidence.

Yoga is well known as it merges the mental meditation physical yoga practices and breathing exercise for deep relaxation of body and mind. (Tunny, J 2007)

Effect of Some Yogic Practices on Aggression Level among College Girls

Yoga makes us feel better. Prating the postures breathing exercise make people healthier in body, mind and sprits Researches show that yoga helps to control anxiety, depression, stress, chronic fatigue, blood pressure and other conditions and disease.

In adolescence period during puberty immense changes and taking place in the body's chemistry and physiology Imbalance of body chemistry and physiology often show up in rebellion and mood swings. Nervous system is affected due these problems. So adolescent feel frustration and feel frustration and feel inferiority so they become aggressive and can not express them among society so they feel low confident. Yoga makes then free from all problems. By doing some yogic practice they can get rid of their problems either physical or psychological. Surya Namaskar is one of these yogic practices. It is the combination of postures as well as pranayama. it has twelve postures with breathing awareness. (Javalgekar, R. 1990)

Sharma Vinita (2003):- She has conducted a project "effect of Surya Namaskar on anxiety". The result practiced that Surya Namskar effects significantly at the level 0.01.

Above research shows that Surya namaskar releases anxiety. So person can get rid of anxiety. it well increase their awareness and their ability to look within, think for themselves, and trust themselves. The result that they will feel move peaceful during a period of rapid change and be able to engage the world with a move positive outlook.

CONCLUSION

It is therefore concluded, with the limitations of this study, that the intensive practice of yoga package (Surya Namaskar & Anulom-Vilom Pranayama) showed significantly changes in the level of aggression among adolescents.

Statistically it is found that is significant difference in the level of aggression among adolescents. Some researches show that Surya Namaskar is a perfect combination of asana and pranayama. So it affects both as asana and pranayama. Anulom-Vilom is also very beneficial for physiological as well as psychological imbalances for adolescents.

Adolescence is a growing age and all types of development like physical, emotional and social occur in this period. After doing practices of this yoga package it is found that this is important yoga package for adolescent's asana makes their flexible and pranayama controls the emotions because this package regulates the nervous system. So in this research work it is found that if adolescent will continue this practice regularly, they will become strongly physically as well as emotionally. Yoga is the best way for living life for everyone.

joshi, B.P. (2003):- The present work is aimed to study of Kapalbhathi, Vaman and Bhramari pranayama on college going students (age group 18-25 years) of J.S. Sanskrit Mahavidyalaya, Saptrishi Ashrama, Haridwar. Total sample were 40 males. By statistical analysis it has been observed that there is a significant relationship between the practice of Kapalbhathi, Vaman and

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Bhramari and Hemoglobin, E.S.R., F.V.C., physical and mental health. All the psychological and physiological tests were measured in brahmavarchas research center, Shanti kunj, Haridwar.

Rai, G.C. (1991):- Investigated that the adjustment of more aggressive students was significantly less than that of less aggressive students, whose adjustment in turn was significantly less than that of non aggressive students.

Mandlik, V. (2007):- The present study was undertaken to observe critically the energy cost and different cardio respiratory changes during the practice of Surva Namaskar. Twenty one male voluntreers from the Indian army practiced selected for this study. Subjects performed Surya Namaskar for 3 min 40 second on an average. After three month training the result was significantly in cardio respiratory changes.

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Kashmir Conflict: Alarming Mental Health Consequences

Nuzhat Firdous¹

ABSTRACT

War damages the very fabric of the society. It not only damages its physical structure but also disrupts its entire social tissue, its environment and the normal routine of life for which people account several reasons. Kashmir has been witnessing a chronic socio-political unrest for the last 2½ decades now. The conflict has had an enormous impact on different aspects of Kashmir's society. Indeed, there has been a colossal damage to the property and infrastructure; however, its impact can be felt nowhere more than on the mental health of the people of Kashmir. Deliberating upon the human suffering, the conflict has not only left thousands dead and orphaned, unleashed and unmitigated violence on women and children, but the alarming increase in the psychiatric morbidity in general, is among the worst possible forms of suffering. This paper thus attempts to give an up-to-date description of the current mental health scenario and ensuing physiological and behavioural implications among the people of Kashmir. Database for this review included PubMed, medIND, Google scholar, and a number of reputed dailies. The studies reviewed have been published in peer reviewed journals, featuring the socio-political chaos in Kashmir and its overall effect on the fate-bitten residents.

Keywords: *Kashmir Conflict, Violence, Mental Health, Physiological & Behavioural Manifestations.*

The prolonged, conflict has taken a heavy toll on the people of Kashmir, destabilising their economic, social and political lives. The emotional and psychological impact of the resulting violence is deeply felt by all, irrespective of gender, age, occupation and location. The uncertainty of life is usually summed up in a common utterance that once people leave home, they are not certain if they would return again.

Studies conducted so far clearly indicate that exposure to violence has latent implications for mental health. In areas affected by chronic strife a larger chunk of population is expected to experience mental health problems and such figures ought to apply to the people of Kashmir where high levels of psychological distress has been seen prevalent in the (Jong, Kam, Ford, Lokuge, Fromm, Galen, et al. 2008). A considerable increase in the number of people being diagnosed with acute stress reaction, depressive disorders, anxiety disorders, and post traumatic stress disorder (Khan & Beg, 1993; Margoob, Firdosi, Banal, Khan, Malik, Sheikh, et al. 2006)

¹ Ph.D. from Department of Psychology, Jamia Millia Islamia, New Delhi and is Currently working as Lecturer, Govt. Degree College, Ganderbal, Kashmir, Jammu & Kashmir

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where the prevalence of post traumatic stress disorder is reported to be 15.9% (Margoob & Sheikh, 2006) which is quite alarming for the state when compared to other places.

Mental disorders in Kashmir have increased drastically since 1980s. A yearly average of 1200 to 1400 patients, were seeking treatment during 1980s. Study conducted by Margoob, the valleys leading psychiatrist, reveals that about 1700 patients had visited Kashmir's sole psychiatric department in the year 1990, but in year 2002 the number had gone up to 48,000 and by December 2004, a total of 62,000 patients had visited the psychiatric services of the department (Margoob, 1995). According to a survey conducted by State Mental Health Society (SMHS), around 80,000 people from Kashmir valley have visited various mental health professionals during the 2005-06 and nearly three fourth have been diagnosed with serious psychological disorders. The records from the outpatient department (OPD), of government psychiatric disease hospital Srinagar show that more than 300 people visit for consultation every day (Hashmi, 2007). The facts are also corroborated by Saiba Verma, a researcher at the department of Anthropology, Cornell University, who reports that, "the Srinagar Psychiatric hospital had about 1,700 visitors in 1990, and the number grew to over 100,000 in 2007. The figure only represents the tip of the ice-berg as many people do not visit mental health experts because of the huge stigma attached to it", she adds (Verma, 2009).

Study conducted by MSF (doctors without borders), a non-governmental organisation, has found an alarming increase in the suicide rates by 400 times because of the ongoing violence (Bukhari, 2010). Moreover, the State hospital has recorded a number of 100 cases in May 2007, which included cases of deliberate self-harm, serious attempts at suicide, and complete suicides. Out of these 100 cases, 83 were women and only 17 were men. Since women live in the state of bereavement, majority of female patients suffer from Major Depressive Disorders, almost 50% have Post Traumatic Stress Disorder. Experts believe that the sudden assumption of male responsibilities, psychological trauma of both reported and unreported sexual violence and the overall stressful environment may be largely contributing to the worsening mental health amongst women. The very same hospital has also registered 50 cases of suicide attempts till June 13 including 15 cases in the first four days of June (Zia, 2007). Most of the people who complete suicide are young males in the age group 25-34. (Hussain, 2008). A survey done in four districts of the region found that one third of the respondents contemplate suicide (Jong, et al. 2008).

In addition to this, a substantial increase in the use of sedatives and drugs has been seen in the masses. Studies comparing the prevalence of substance misuse pre and post conflict reveals that the use of substances is ever increasing whereby use of alcohol has increased by 30% in a society where alcohol use was almost nonexistent. Use of uploads has increased from 9% to 73%, people using multiple substances has increased from 15% to 41%. The same study concluded that 15% of people attributed their drug use to the prevailing trauma and turmoil (Margoob, 2004). "People cope with the trauma and negative emotional states by using anything, many substances to

induce a temporary state of sleep and rest" writes Murali Krishnan quoting Mushtaq Margoob, the leading psychiatrist of the valley (Krishnan, 2010).

A more recent study revealed the prevalence rate of depression to be (55.72%) where depression has been seen more prevalent (66.67%) in the 15 to 25 years age group, followed by (65.33%) in the 26 to 35 years age group. Moreover, a high percentage of depressive disorder has been found in rural areas (84.73%) as compared to urban areas (15.26%). Moreover, the prevalence of depression among females has been seen higher (93.10 %) as compared to males (6.8%) in rural areas (Amin & Khan, 2009).

The worst part of the conflict is that it equally affected the psyche of children which are considered to be the future of a given society. Study conducted by Khan and Margoob found that most common traumatic event experienced by children was witnessing the killing of a close relative (49%), followed by witnessing the arrest and torture of a close relative (15%) (Khan & Margoob, 2006). Parental loss, frequent displacement and exposure to violence have led to an increase in paediatric psychopathology. Since children lack the cognitive capacities than the adults and find it difficult to talk upon their traumatic experiences. Unable to transform their internal conflicts and feelings into words, they are expressed in repetitive re-enactments, intrusive visual images, trauma specific fears, aggressive and regressive activities, and other behavioural states. Behavioural changes amongst children and youth is seen in the form of isolation, aggression (including stone-pelting), drug abuse, lack of respect for elders, loss of morality/values and hopelessness. Such emotional and behavioural reactions has also been seen in Palestinian children which are manifested in a number of ways including problems with speech, difficulty concentrating, learning difficulties, sleep related problems, bedwetting, loss of recently acquired skills, feelings of guilt, and variety of somatic complaints (Mousa, 2009). It has been noticed that older children are more vulnerable than younger children to the psychological effects of war (Bloch, Silber, & Perry, 1956).

Owing to parental loss, most of the children are often reared in orphanages and PTSD and depression are seen common diagnoses in children living in orphanages (Margoob, 2006) (Margoob, Rather, Khan, Singh, Malik, Firdosi, et al. 2006). Study conducted by Margoob et al (2006) also found a greater vulnerability of psychiatric morbidity in female children of 5-12 years of age range.

The younger child's psychological response resonates with the parental response as they have less cognitive capacity to independently evaluate the dangers. Vizek-Vidovi et al. (2000) compared younger children (grades 2-5) with an older group (grades 6-8) in Croatia, and found that the older children manifested more depressive and anxiety reactions. Children who are in general not exposed to war, i.e if they are not born in war-like conditions, they find it more difficult to cope up in war-like situations and exhibit Post Traumatic Stress Disorder for very long periods of time. While the ones born in war-torn areas grow mentally tough and aggressive.

Dar (2012), while assessing the needs of youth in Kashmir maintains that the youth of Kashmir have borne the major brunt of the ongoing violence, not only by making up the majority of dead and missing but also of arrests, beatings, detentions, rapes and other forms of everyday harassment.

Owing to deaths and disappearances of male members, many women have no choice but to head their families and bear the responsibility. The most precarious position of "half widows" or women, unsure of the fate of their husbands, is even more distressing. These women neither can inherit property or claim widow benefits nor they can remarry as according to Islamic law they must wait for at least seven years (Manecksha, 2011). This sense of insecurity has given rise to several psycho-physiological pathologies. The constant stress experienced by the women folk has adversely affected their reproductive health as well, resulting in frequent miscarriages, polycystic ovarian disease (PCOS), premature ovarian failure (POF-commonly called menopause) which is alarmingly high (20-50%) when compared to India's national POF rate of 1-5 percent (Yosuf, 2014).

The extensive reports by local, national and international human rights organisations have been highlighting the issue consistently. One such report is given by a human rights organisation-Human Rights Watch. The report reads:

"Suspicion and fear continue to permeate the Kashmir valley. A knock on the door late at night send spasms of anxiety through households, afraid that a family member will be asked by the security forces or militants to step outside for "a minute" and then never return. Psychological trauma related to the violence has been enormous, as life itself is constantly under threat" (Human Rights Watch, 2006).

The report and others like it have drawn national and international attention towards "an epidemic of trauma" in the Kashmir valley, which has, in turn, led to a range of institutional responses, from formal to informal, from both state and non-state actors. In other words, mental health has emerged as one of the most pressing public health concerns in contemporary Kashmir. The long standing dispute has caused Post Traumatic Stress Disorder (PTSD) among up to 90% people of the valley, which makes around six million populations. Justine Hardy, a British author and journalist, while witnessing the impact of the protracted conflict on the mental health of people for the last 20 years maintains, "The conflict had a great cost in terms of mental health of the people of the occupied territory. The conflict has caused long term mental damage among a high percentage of the population. The shock after seeing their children being blown up, bodies of their beloved ones delivered to their doorstep and witnessing the unrecognizable bodies of the relatives resulted in nervous breakdown among the people. It reduced the individual to a barely functioning state."

CONCLUSION

Since the mental health services took birth from the erstwhile mental asylum, there is a stigma attached in being a psychiatric patient, which is also true to other places. The studies also reveal that more than 80% people with mental health problems face stigma as one of the main barriers to recovery (Pande, 2009).

The concept of mental health in Kashmir can best be described as orthodox. The mental health services continue to remain segregated instead of getting integrated into the overall health care system, confined to Govt. Psychiatric Disease Hospital, Srinagar as the main centre to cater to the needs of the whole valley-a population of about eight million, with no psychiatric centers nor any extension of services to other parts of the valley even in the present stressful circumstances. Hence, Government needs to pay attention to the existing psychiatric centers, make certain advancements in these centers to ensure their infrastructure, staff, equipment and other facilities. Efforts need to be made to ensure community participation in the after care and rehabilitation of mentally disordered patients. Since hospitalisation and pharmacological treatment is not sufficed to ensure the success of any form of mental health service.

Mental health literacy is an equally important issue. Firstly awareness generating campaigns are required whereby public could be educated about what mental disorders actually mean. Mental health literacy should be given the same priority as for cancer, AIDS etc, via electronic and mass media.

Finally to cope with the prevailing situation in Kashmir and its effects on the mental health of the average person, a network of trained counsellors is the need of the hour. Counselling centres/counsellors can be helpful to the victims of torture and those suffering from trauma related mental problems. If the prevailing environment cannot be changed, we can at least design our mental sets in such a manner that could result in healthier mental status, calling an attention from scholars and policymakers alike.

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Positive and Negative Peer Contagion In Relation To Quality of Friend and Friendship

Prerna¹, Naved Iqbal², Akash Kumar Mahato³

ABSTRACT

Peer contagion describes a mutual influence process that occurs between an individual and a peer and includes behaviors and emotions that potentially undermine one's own development or cause harm to others. The influence process often occurs outside of awareness; participants may not intend to influence their peers, but they engage in relationship behaviors that satisfy immediate needs for an audience or companionship, and these behaviors inadvertently influence themselves or others. It can be of two types positive and negative peer contagion. Negative peer contagion include- aggression where as positive would include altruistic behavior. Different ways to reduce peer contagion would that include evaluation of aggression, intervention strategies for youth. The present study conducted on 250 adolescents (age between 13 to 15). Then on the basis of screening total number of 120 subjects were selected and divided into two equal groups of 60 subjects; each group had 30 low and 30 high quality of friendship group. They were selected from different schools of South Delhi. Tools used in the study are Aggression Questionnaire, Self-report altruistic scale (SRA), Quality of friendship questionnaire; Quality of friend (Interview schedule). The result suggested that there is no interaction between quality of friend and the quality of friendship in the positive peer contagion. But desirable friend and undesirable friend and high and low quality of friendship can distinguished on the positive peer contagion. On the negative peer contagion there is interaction between the quality of friendship and quality of friend and also high quality of friendship is highly related to it, also negative peer contagion is more related to undesirable friend.

Keywords: *Quality of Friendship, Peer Contagion, Aggression, Altruism*

The term peer contagion describes a mutual influence process that occurs between an individual and a peer and includes behaviors and emotions that potentially undermine one's own development or cause harm to others. Examples of peer contagion include aggression, bullying, weapon carrying, disordered eating, drug use, and depression. The influence process often occurs outside of awareness; participants may not intend to influence their peers, but they engage in relationship behaviors that satisfy immediate needs for an audience or companionship, and these

¹ M.Phil Trainee Clinical Psychology, AIBAS, Amity University, Rajasthan

² HOD & Professor, Department of Psychology, Jamia Millia Islamia, New Delhi

³ Assistant Professor, AIBAS, Amity University, Rajasthan

behaviors inadvertently influence themselves or others. Peer contagion occurs in natural settings involving peer interaction and can also be an outcome of intervention and educational programs that aggregate children and adolescents. Several mechanisms of peer contagion have been proposed. Among them is deviancy training, which involves the interpersonal dynamic of mutual influence during which youth respond positively to deviant talk and behavior. As applied to peer contagion, the deviancy training process is characterized by give-and-take exchanges between friends that promote deviant actions (e.g., past stories of deviant acts, suggestions for future behavior, what ifs) and elicit positive responses, such as laughter (Dishion & Tipsord (2011).

Negative peer contagion

The effects of peers on aggression and antisocial behavior in childhood and adolescence, and on symptoms of emotion dysregulation, (Emotion dysregulation, emotional behavior that is in congruent with the situation or potentially undermines development, such as angry outbursts, extreme sadness and depression, or debilitating fear and anxiety) such as depression in adolescence.

Childhood Aggression

The actual time spent interacting with age mates surpasses the time spent with parents .During early and middle childhood, gender seems to be the most salient dimension organizing peer affiliations, reflecting the dominant and implicit interest in reinforcing values and norms associated with one's gender identity(Adam et.al, 2005). In a study girls at play in preschool and found that girls 'affiliations with aggressive children increased the probability of the girls' future aggression, and that changes in problem behavior in early childhood were predicted by affiliations with aggressive male and female children(Allen et.al, 2008). The dynamic interchanges among boys in preschool settings, revealing that responses to aggression in boys on the preschool playground formed the basis for learning and amplification of aggression. In these interactions, a successful aggressive overture in response to peer conflicted to future aggression with peers on the playground (Dijkstra et. al, 2010). Aggressive preschoolers preferred one another in play, and as would be expected, such play led to later increases in aggressive behavior. The social-cognitive map, provide procedure for studying peer relationships and cliques, revealing the complexity and structure of peer networks in the middle childhood years.(Cohen et.al, 2001).In a systematic studies, aggressive children, boys in particular, were often found to be central to the core social cliques in the classroom despite the fact that they were often socially rejected by many classmates. Rejection by peers because of aggression depends on the overall level of aggression in the school.(Trembley et.al ,2000)Isolating the social interaction processes (i.e., microsocial processes) underlying such effects at this age is as difficult as it is rare. This important study suggests that the mechanisms of contagion may also include negative reinforcement arrangements, in that children may collectively learn aggression in peer contexts in which "winning" a fight is the dominant problem-solving strategy, and this in turn increases the likelihood of future aggression. These findings suggest that adult structure and supervision of

peer environments is likely one of the key moderators of peer contagion effects (Warren et. al, 2005)

Positive peer contagion

Although Dishon and Tipsord (2011) have mentioned less about positive peer contagion. Peers influence each other in negative ways; peers can also influence each other in positive ways. One can safely assume that peer contagion processes happen for positive behaviors, such as helping others. The fact that peer relationships are so important during adolescence suggests that adults must find ways to promote positive values and behaviors in those relationships. Positive peer influence to more fully understand how children and adolescents influence each other and to gain insight into how we might decrease the negative outcomes of peer contagion and increase positive peer influences. Peer influence is inevitable and thus, to reduce deviant peer influence, society must promote non deviant values and strengthen youths' positive connections to peers and adults. The characteristics of schools and communities and children's and adolescents' experiences within those domains have a significant impact. (Hanish et.al, 2005)

Friendship Quality

The old proverb says, "A friend in need is a friend indeed." That is, friends help and share with each other. Children agree with adults that these types of prosocial behavior are expected among friends. Children also agree with adults that good friends praise each other's successes and encourage each other after failures, thereby bolstering each other's self-esteem. Some features of high-quality friendships are recognized by adolescents but not by young children. Adolescents often say that best friends tell each other everything, or disclose their most personal thoughts and feelings. These personal self-disclosures are the hallmark of an intimate friendship. Adolescents also say that friends will stick up for one another in a fight, demonstrating their loyalty.

Direct Effects of Friendship Quality

Most writers on friendship have assumed that high-quality friendships have positive effects on children, fostering their self-esteem, improving their social adjustment, and increasing their ability to cope with stressors. Moreover, the correlations of friendship quality with indicators of social adjustment are consistent with that assumption. For example, among early adolescents, having friendships with more positive features correlates with greater involvement in school, higher self-perceived social acceptance, and higher general self-esteem. Still, a significant correlation between two variables is only weak evidence that one affects the other. (Hawley et.al, 2003)

Indirect Effects of Friendship Quality

For decades, researchers from a variety of disciplines have tested the hypothesis that children and adolescents are influenced by the attitudes and behaviors of their peers. Not all studies have provided support for the hypothesis, but the available data convincingly show that close friends influence many facets of children's and adolescents' social behavior and adjustment. In most

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studies, researchers have not assessed the quality of the friendships among the peers who were influencing one another. But when the issue has been raised, researchers have often suggested that the magnitude of friends' influence should be affected by the quality of their friendships. In this way, friendship quality can have an indirect effect on children's social development—affecting how much children are influenced by their friends' characteristics. By examining friendship interactions of youth representing differing developmental patterns of antisocial behavior, this study also aimed to better elucidate the characteristics and influence processes associated with both deviant and normative friendships. (Miller et.al, 2002)

Deviant Friendships

Several researchers have identified unique developmental histories of problem behavior in adolescents that may be important when examining the role of peer relationships in the development of antisocial behavior. Antisocial behavior persists into adolescence in approximately half the males who engage in it during childhood. (Goodnight et.al, 2006)

Normative Friendships

Much of the work on understanding the quality of friendships and influence has focused on normative children and adolescents. In general, we know that there is positive friendship qualities associated with positive adjustment in youth. Academic success and school engagement have been found to be associated with positive friendship qualities such as intimacy and prosocial friendship behaviors. (Mrug et.al, 2009) Other positive developmental outcomes (i.e., high levels of self-esteem, adjustment, coping) are also associated with high quality friendships. Quality (characteristics) of the friend affect the quality of friendship, it influences whether the friend is good (in academic, sincere, helpful, supportive) or bad (bullying, aggressive, drug use, rebellious).

The aim of the study was to find out positive and negative peers contagion in relation to quality of friend and quality of friendship.

METHODOLOGY

The present study conducted on 250 adolescents (age 13-15) for screening. Then on the basis of scores, 60 undesirable & 60 undesirable types of friend group were selected, each group had 30 low and 30 high quality of friendship group. Thus, the final sample was of 120 participants. They were selected from different schools of South Delhi. A 2x2 factorial design was used in the present investigation. Factor one is quality of friend and it has two levels, i.e., good and bad friend. Factor two is quality of friendship and it also has two levels, i.e., low and high quality of friendship.

TOOLS:

- Aggression Questionnaire, Aggression is measured by Aggression Questionnaire developed by Buss and Perry. (1992). Its 34 items are scored on the following five scales, Physical Aggression, Verbal Aggression, Anger, Hostility, and Indirect Aggression. A Total score is also provided, along with an Inconsistent Responding Index (a form of a lie scale). Standardization is based on a sample of 2,138 individuals, aged 9 to 88, and norms are presented in three age sets, 9 to 18, 19 to 39, and 40 to 88. The reliability co-efficient Cronbach's alpha was found to be 0.988 on the sample of the present study.
- **Self-report altruistic scale-** Altruistic behavior will be measured by Self Report Altruistic Scale developed by Rushton, Singh & Khanna (1981). *It has 20 items which is measured in 5 point scale. The goal was to measure altruism in a behaviorally concrete manner. The scale was found to be psychometric stability, internal consistency discriminant validity.* The reliability co-efficient Cronbach's alpha was found to be 0.983 on sample of the present study.
- **Quality of friendship questionnaire:** Quality of friendship will be measured by quality of friendship scale developed by Peihler and Dishion. (2007). It will be used to determine high quality and low quality of friendship. This scale has positive friendship features and negative friendship features. Positive friendship features consist of 5 items whereas Negative friendship feature consists of 5 items and the subjects have to respond on 5 point scale.

Procedure:

Subjects were contacted individually from different schools of South Delhi. Scales of quality of friendship, aggression, altruistic behavior, problematic behavior and interview schedule for assessing the quality of friend were administered to 250 participants of class 8th, 9th and 10th. Then on the basis of scores, 60 good & 60 bad types of friend group were selected, each group had 30 low and 30 high quality of friendship group. Then these groups were compared on negative (aggression) and positive contagion (altruistic behavior). The quality of friend was evaluated on the basis of Indian social norms. The data was sort on basis of the scores of quality of friend that is; desirable type has been assigned to those who scored below 5 and undesirable type has been assigned to those who scored above 5. In the quality of friendship those who scored above 30 assigned as high quality of friendship and those who scored below 30 assigned as low quality of friendship.

RESULT TABLES

The results of the present study are reported in the following section. Keeping in view the design and objectives of this study, the obtained results were analyzed using the two-way Analysis Of Variance (ANOVA) followed by the t test. The obtained results are being presented in the following table.

Table 1: Comparison of different groups on positive peer contagion (altruism)

	Quality of friendship	N	Mean	Std. Deviation	t	p
Desirable	high	30	67.60	5.26	.928	(NS)
	low	30	68.83	5.02		
Undesirable	high	30	17.36	4.99	2.92	.01
	low	30	20.53	3.18		

Table 1 show that significant difference was not found between high quality of friendship and low quality of friendship on altruism. However, in the undesirable friend significant difference was found between high and low quality of friendship at 0.01 levels on altruism. High altruism group scored significantly higher than low altruism group.

Table 2: Comparison of different groups on negative peer contagion (physical aggression)

	Quality of friendship	N	Mean	Std. Deviation	t	p
Desirable	high	30	16.73	2.27	1.76	NS
	low	30	15.86	1.43		
Undesirable	high	30	54.73	1.85	7.97	0.01
	low	30	48.46	3.88		

In the desirable friend Table 2 shows that significant difference was not found between high quality of friendship and low quality of friendship on physical aggression whereas, in bad type of friend, significant difference was found between high and low quality of friendship at 0.01 levels. In undesirable friend, high quality of friendship group scored significantly higher than low quality of friendship group on physical aggression.

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Table 3: Comparison of different groups on negative peer contagion (verbal aggression)

	Quality of friendship	N	Mean	Std. Deviation	t	p
Desirable	high	30	8.80	1.39	2.33	0.05
	low	30	8.03	1.12		
Undesirable	high	30	31.1	2.88	4.08	0.01
	low	30	28.2	2.6		

In the desirable friend Table 3 shows that significant difference was found between high quality of friendship and low quality of friendship on verbal aggression at 0.05., between high and low quality of friendship at 0.01 levels on verbal aggression. In both good and undesirable friend, high quality of friendship group scored significantly higher than low quality of friendship group on verbal aggression.

Table 4: Comparison of different groups on negative peer contagion (anger)

	Quality of friendship	N	Mean	Std. Deviation	t	p
Desirable	high	30	14.3	1.44	2.13	0.05
	low	30	13.6	1.06		
Undesirable	high	30	40.16	2.52	2.7	0.01
	low	30	38.5	2.22		

In the desirable friend Table 4 shows that significant difference was found between high quality of friendship and low quality of friendship on problem behavior at 0.05 and between high and low quality of friendship at 0.01 levels. In both good and undesirable friend, high quality of friendship group scored significantly higher than low quality of friendship group on anger.

Table 5: Comparison of different groups on negative peer contagion (hostility)

	Quality of friendship	N	Mean	Std. Deviation	t	p
Desirable	high	30	11.15	1.69	3.19	0.01
	low	30	10.16	1.53		
Undesirable	high	30	50.36	3.39	3.6	0.01
	low	30	47.33	3.06		

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In the desirable friend Table 5 shows that significant difference was found between high quality of friendship and low quality of friendship on hostility and between high and low quality of friendship at 0.01 levels. In both good and undesirable friend, high quality of friendship group scored significantly higher than low quality of friendship group on hostility.

DISCUSSION

The purpose of this study was to find out positive and negative peer contagion with respect to quality of friend and quality of friendship. . The participants included both the boys and girls and the age range taken was from 13 years to 15years. The quality of friendship was measured on the basis of two dimensions positive and negative friendship feature. The quality of friend was measured by interview schedule which was designed on the keeping in mind the Indian social norms of the contemporary society. The reliability of the collected data was obtained is 0.9. The data were analyzed by using two - way ANOVA and t- test.

The desirable and undesirable friend group will differ on positive peer contagion (altruism) was supported by the present study. Positive peer contagion has significant difference in desirable friend and undesirable friend. The reason for such finding might be the adolescents who are good in studies are so very well versed with the values that they are ready for help others at any time. The high quality friendship and low quality friendship adolescents will differ on positive peer contagion was also supported by the present study. Positive peer contagion has significant difference in high Quality of friendship and low quality of friendship. The reason for such finding that the time which is important to give in any relationship is not given as much as needed to understand each other; therefore these adolescent have low quality of friendship. Positive peer contagion has no significant difference on the interaction of quality of friend and friendship. The reason for such finding might be in the case of desirable quality of friend the quality is friendship is low. This is may be due among student friendship values are not prioritized over the studies. Adolescent those are under good quality focus more on the academic than the values and quality of friendship.

Studies conducted by Dishion and Tipsord(2011) on the peer contagion stated that there is less researches on the subject matter as this area has not been explored much by the researcher the possibility of the reason for the rejection may not be clear too.

The desirable and undesirable friend group will differ on negative peer contagion (aggression) was supported by present study. Negative peer contagion has significant difference in desirable friend and undesirable friend. The interaction between quality of friend and friendship was seen in negative peer contagion. The reason for such finding might be those who are seen as undesirable friend generally have disorders related to eating, often show rebellious behavior and more over they have outburst of anger. All these things have developed in them because these adolescents are rejected by the society and by their own parents. The high quality friendship and low quality friendship adolescents will differ on negative peer contagion” was supported by

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present study. Negative peer contagion has significant difference on high and low quality of friendship. The reason may be that many adolescent believe that if they will not do as their bad friends are doing they will be thought as outdated; in order to maintain their up to date status in their group and hence there is seen high quality of friendship in this group. Negative peer contagion has significant interaction between quality of friend and friendship. The reason for this finding might be the following studies: Dishion and Tipsord (2011) in their research on peer contagion prove that negative peer contagion (disordered eating, problematic behavior and aggression) is related with quality friend and friendship. Piehler & Dishion (2007) have researched on how relationship characteristics affect contagion processes is complex. Although some research finds that high-quality relationships are the most influential.

There will be comparison of different groups on negative peer contagion. This result might be due to fact that often there is group of adolescent who liked to be called as gang of the school or the society.

CONCLUSIONS

The result of present study suggested desirable friend and undesirable friend and high and low quality of friendship can distinguished on the positive peer contagion. On the negative peer contagion there is interaction between the quality of friendship and quality of friend and also high quality of friendship is highly related to it, also negative peer contagion is more related to un desirable friend.

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Psychological Correlates of Substance Abuse among First-admission Patients with Substance Use Disorders

Dr. Satyananda Panda¹

ABSTRACT

The aim of the present study was to investigate psychological correlates of substance abuse among first-admission male and female patients diagnosed with substance use disorders. Data was collected from a sample of 60 (30 male and 30 female) first-admitted patients with substance use disorders (SUDs), with no previous history of specialized treatment (addiction clinics, psychiatry). Substance use disorders were diagnosed according to DSM-V. Patients were assessed with Beck Depression Inventory and Eysenck Personality Questionnaire- Revised (EPQ-R). The statistical analysis indicated that depression did not correlate with psychoticism ($r = -.062$). There existed a negative and significant correlation between depression and extraversion ($r = -.68, p < .01$). There also existed a negative and significant correlation between extraversion and neuroticism ($r = -.601, p < .01$). Neuroticism correlated with depression positively and significantly ($r = .59, p < .01$). There was no significant difference found between hospitalized male and female patients with substance abuse disorders on different psychological variables like depression, psychoticism, and neuroticism. However, a significant difference among them was found on extraversion ($t = 3.17, p < .01$). Depression and personality traits still may have some role in the etiology of substance use disorder and may act either as predisposing, precipitating or perpetuating factors. So, depression and personality traits of a person should be considered during treatment, management, prevention and rehabilitation of the patients with substance use disorder.

Keywords: *Substance Abuse, Depression, Neuroticism, Personality Traits, Substance Use Disorders.*

Substance abuse refers to the maladaptive pattern of substance use that results in repeated, significant adverse effects and maladaptive behaviours: failure to meet obligations at work, in school, or at home; repeated use of psychoactive substance in hazardous ways; recurrent legal problems related to the substance; and continued use of the substance despite its negative effects on social relationships (Baron, 2008). It is also known as drug abuse and substance use disorder. In the fifth addition of the Diagnostic and Statistical Manual of Mental Disorders (2013), the revised chapter of “Substance-Related and Addictive Disorders” includes substantive changes to the disorders grouped plus changes to the criteria of certain conditions. The DSM-5 Substance-

¹ Assistant Professor, Department of Psychology, Sikkim University, Gangtok (Sikkim)

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Related Disorders Work Group has proposed eliminating two categories in the current DSM-IV. Substance use disorder in the DSM-5 combines the DSM-IV categories of substance abuse and substance dependence into a single disorder measured on a continuum from mild to severe (APA, 2013).

Changes in women's social role over the past years likely influenced the gender gap in substance use and substance related disorders, with potentially significant prevention and treatment implications. Male to female ratios of prevalence estimates of substance use are narrowing in different countries. The initiation of substance use is progressively taking place at younger ages, the trend being more dramatic among women as compared to men. Women's accelerated progression to dependence (so called "telescoping effect") is a robust finding among alcohol dependent individuals, although the effect seems to be weaker among younger individuals (Zilberman et al., 2008).

Wise, Miller and Preussler (2003) conducted a study to determine if there is a relationship between depression and alcohol/substance use in a rural population in the Midwestern United States. In a case control design, those who reported alcohol use or alcohol use with other substance use were found to score significantly higher on the depression scale than those who reported no alcohol or substance use, although the effect sizes were small. It was found that males and females who reported alcohol use only did not differ significantly on the depression scale.

Cuomo et al. (2008) did a study to analyze psychological and judicial features of a subgroup of inmates with substance abuse. Substance abusers had on average multiple incarcerations (78.8%), more juvenile convictions (60.2%), more violent behaviors during detention (29.8%), and a history of one or more suicide attempts (20.8%). They also had higher scores on subscales for childhood trauma, higher scores for psychoticism and neuroticism, higher impulsivity levels, worse resilience, increased hostility, and prevalent suicidal ideation.

Dubey et al. (2010) conducted a study to investigate the personality traits of substance abusers as compared with non-substance abusers by using the NEO-Five Factor Inventory. It was found that substance abused group scored higher on Neuroticism and Extraversion dimensions, whereas non-substance abusers significantly scored higher on Openness and Conscientiousness dimensions of Big-Five. No significant difference was obtained on Agreeableness domain of personality.

Substance abuse has traditionally been prevalent among Sikkimese population. From their observation substance abuse is more common in rural areas basically alcohol than the urban areas which is negatively related to level of education and socio economic condition. State Socio Economic Census (2006) of Department of Economics & Statistics Monitoring & Evaluation

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(DESME) has shown that prevalence of alcohol use in Sikkim is 37.57% and 556.92% in urban and rural continuum. Emergency services utilization by substance abusers is one of the sources and indicators of assessing problematic substance use. It is an important measure to assess treatment demand from substance abusers and can be an effective tool for an assessment of psycho-social causes, magnitude and pattern of substance abuse in the community. Therefore, collecting information of substance abusers in the hospital setting would serve as a tool to have an idea about the psychological causes and nature of substance abuse in the community. It will help to understand the basic psychotic problems arising from different substance use. Keeping in mind the review of related literature, the aim of the present study is to investigate on psychological correlates of substance abuse among hospitalized male and female substance abusers.

OBJECTIVES

1. To find out the correlation between depression and personality traits (i.e. Psychoticism, Extraversion and Neuroticism) among hospitalized male and female substance abusers.
2. To find out the significant difference between hospitalized male and female substance abusers on depression.
3. To find out the significant difference between hospitalized male and female substance abusers on psychoticism.
4. To find out the significant difference between hospitalized male and female substance abusers on extraversion.
5. To find out the significant difference between hospitalized male and female substance abusers on neuroticism.

HYPOTHESES

1. Positive and significant correlation will exist between Depression and Personality traits (i.e. Psychoticism, Extraversion and Neuroticism) among hospitalized male and female substance abusers.
2. There will be no significant difference between hospitalized male and female substance abusers on Depression.
3. There will be no significant difference between hospitalized male and female substance abusers on Psychoticism.
4. There will be no significant difference between hospitalized male and female substance abusers on Extraversion.
5. There will be no significant difference between hospitalized male and female substance abusers on Neuroticism.

METHOD

For the present study, 60 participants were taken which included 30 males and 30 females of age 19-55 years, admitted to Detoxification and Rehabilitation Centre, 32 mile, Sikkim. Stratified random sampling was employed for the purpose of data collection. The mean age of male and female hospitalized substance abusers was 32.5.

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Inclusion Criteria:(a)Patients hospitalized since maximum last 10 days; (b) Patients who are first time admitted cases; (c) Substance abusers i.e. alcohol and other substances like opium, counter drug, marijuana; (d) Males and Females; (e) Rural and Urban areas; (f) Both Educated and Uneducated; (g) All religion; (h) Lower, middle, and upper economic class.

Exclusion Criteria:(a)Patients having any psychiatric disorders; (b) Patients not willing to participate; (c) Patients with major physical diseases.

The following psychological tools were used for the purpose of collection of data:

1. *The Beck Depression Inventory (Beck, Steer & Brown, 1996):* The Beck Depression Inventory is a widely utilized 21-item self-report scale in both clinical and research studies (Beck, Steer & Brown, 1996). The Beck Depression Inventory-II is a depression rating scale that can be used in individuals that are ages 13 years and older, and rates symptoms of depression in terms of severity on a scale from 0 to 3 based on the 21 specific items. The test-retest reliability for BDI-II was 0.93.
2. *The Eysenck Personality Questionnaire-Revised (Eysenck, 1991):*EPQ-R is the result of many years of developmental work. It was designed to give rough and ready measure of three important personality dimensions: psychoticism, extraversion, and neuroticism. Each of these three traits are measured by means of 100 questions, carefully selected after lengthy item analysis and factor analysis.

Procedure: For the collection of data, a prior permission was sought from the director of Rehabilitation Centre. The participants were explained the purpose of the present study and data was then collected individually. It was made sure that the participants understood the instruction properly and after assurance both the questionnaires (Beck Depression Inventory-II and Eysenck Personality Questionnaire-R) were handed out to the participants and no time limit was given.

In order to present data in more intelligible and interpreted form the investigator used Statistical Package for Social Science (SPSS) version 22. Descriptive statistics like percentage, mean and standard deviation was also used. Data was also calculated using Pearson's co-efficient correlation and t-test.

RESULTS AND DISCUSSION

In order to test various hypotheses put forward, the following analysis was carried out.

Table 1: Correlation Matrix (N=60)

Variables	Depression	Psychoticism	Extraversion	Neuroticism
Depression	-	-.062	-.679**	.591**
Psychoticism	-	-	.159	-.143
Extraversion	-	-	-	-.601**
Neuroticism	-	-	-	-

* Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

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Table 1 shows that depression is not correlated with psychoticism ($r = -.062$) which suggests that depression has no relationship with psychoticism. The table also shows that depression is negatively correlated with extraversion ($r = -.679$) at 0.01 level which suggests that as the depression level in a person increases, the out-going and social nature of a person decreases. In other words, it can be interpreted that person with introvert personality trait may have depression and vice versa. There also exists a negative and significant correlation between extraversion and neuroticism ($r = -.601$: negatively significant at 0.01 level). It can also be seen from Table 1 that neuroticism is correlated with depression positively and significantly at 0.01 level ($r = .591$). This means that as the level of depression increases, neuroticism level also increases. Neuroticism refers to a tendency to experience negative affect and therefore this positive correlation of neuroticism with depression is not surprising which have been supported by the previous findings. Longitudinal studies (Hirschfeld et al., 1989) have found that high pre-morbid neuroticism is positively associated with the development of depression.

Thus, the first hypothesis of the study “there will be positive and significant correlation between depression and personality traits (i.e. Psychoticism, Extraversion and Neuroticism) among hospitalized male and female substance abusers” has not been retained. The result shows positive correlation between depression and just one dimension of personality i.e. neuroticism.

Table 2: Mean, Standard Deviation and t test of hospitalized male and female substance abusers on Depression (N=60)

Gender	N	Mean	SD	t- Value	Sig./Non-Sig. (df = 58)
Male	30	24.27	11.38	-1.732	.081 (Non-sig.)
Female	30	29.93	13.85		

Table 2 shows the mean scores of hospitalized male and female substance abusers which are 24.27 and 29.93 respectively. The t-test of both males and females is -1.732 with the significant value of .081 which is not significant. This means that there is no significant difference between hospitalized male and female substance abusers on depression, thus, retaining the first hypothesis of the study “there will be no significant difference between hospitalized male and female substance abusers on depression.” However, since the mean value of female substance abusers is greater than that of males, it indicates that females tend to be more depressed than males. The reason could be that females are sensitive beings and report feeling shame or embarrassment because they are in substance abuse treatment in a small conservative place like Sikkim which in turn result in feeling worthless and depressed. Women are more likely to become depressed in response to stressful events like a death in the family, difficult relationship, or a failed job and they tend to respond in ways that prolong their stress more so than men do. It was found that anxiety and depressive disorders tend to be more prevalent and severe among women (Brady & Randall, 1999).

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Table 3: Mean, Standard Deviation and t test of hospitalized male and female substance abusers on Psychoticism(N=60)

Gender	N	Mean	S.D.	t- Value	Sig./Non-sig.
Male	30	7.67	2.78	.443	0 .680 (Non-sig)
Female	30	7.37	2.47		

Table 3 shows the mean score of hospitalized male and female substance abusers which is 7.67 and females, 7.37. The t-test is .443 with the significant value of .680 which is not significant. This means that there is no significant difference between male and female substance abusers on psychoticism. This retains the second hypothesis of the study “there will be no significant difference between hospitalized male and female substance abusers on psychoticism.” However, since the mean value of males is greater than that of females, it indicates that male substance abusers are slightly higher on psychoticism as compared to female substance abusers which describes the personality as solitary, troublesome, cruel, and lacking in feeling and empathy, hostile to others, sensation seeking, and liking odd and unusual things. This finding is supported by a study conducted by Austin et al. (2001) where it was found that males scored significantly higher than females on psychoticism. Biological differences between males and females interacting with the predisposing factors that may in turn be influenced by social and cultural factors may explain differences in psychosis between males and females. Females are by nature sensitive, soft, and vulnerable beings which go against the characteristics of psychoticism.

Table 4: Mean, Standard Deviation and t test of hospitalized male and female substance abusers on Extraversion (N=60)

Gender	N	Mean	Std. Deviation	t- Value	Sig./Non.sig.
Male	30	13.73	3.02	3.17	.000 (Sig.)
Female	30	9.47	6.72		

Table 4 shows the mean scores of hospitalized male and female substance abusers which are 13.73 and 9.47 respectively. The t-test of both males and females is 3.17 with the significant value of .000 which is significant at 0.01 level. This means that there is a significant difference between male and female substance abusers on extraversion. Thus, the third hypothesis of the study “there will be no significant difference between hospitalized male and female substance abusers on extraversion” has not been retained. The result shows that male substance abusers are more out-going and social as compared to female substance abusers and is evident from their mean scores where males have greater score. This could be due to males playing a dominant role in the society where females are still suppressed and not allowed their freedom of speech and expression.

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Table 5: Mean, Standard Deviation and t test of hospitalized male and female substance abusers on Neuroticism(N=60)

Gender	N	Mean	Std. Deviation	t- Value	Sig./Non.sig.
Male	30	13.27	3.70	-3.83	.385 (Non-sig.)
Female	30	17.33	4.48		

Table 5 shows the mean scores of hospitalized male and female substance abusers which are 13.27 and 17.33 respectively. The t-test of both males and females is -3.83 with the significant value of .385 which is not significant. This means that there is no significant difference between male and female substance abusers on neuroticism. Thus, the fourth hypothesis of the study “there will be no significant difference between hospitalized male and female substance abusers on neuroticism” has been retained. The result shows that female substance abusers are higher on neuroticism as compared to male substance abusers and is evident from their mean scores where females have greater score. Neuroticism reflects level of emotional adjustment and instability. This finding is supported by a study by Austin et al. (2001) where it was found that females scored significantly higher than males on neuroticism.

CONCLUSION

Results of the present study show that no correlation was found to exist between depression and psychoticism among hospitalized male and female substance abusers. There was a negative correlation between depression and extraversion. Depression was found to be positively correlated with neuroticism among hospitalized male and female substance abusers. There is no significant difference between hospitalized male and female substance abusers on depression though female scored higher on depression than males. Among the dimensions of personality, psychoticism was higher in male substance abusers than females but they did not differ significantly on this dimension. On extraversion, there seem to be a significant difference between male and female substance abusers rejecting one of the hypotheses of the study. It was also found that males were more extraverted than females. On neuroticism, no significant difference was found. However, female substance abusers scored higher on it than males.

SUGGESTIONS FOR FUTURE RESEARCH

1. Depression and personality traits may have some role in the etiology of substance use disorder and may act either as predisposing, precipitating or perpetuating factors. So personality traits of a person should be considered during treatment, management, prevention and rehabilitation of the patients with substance use disorder.
2. A cross-sectional study examining substance abuse among various age groups can also be conducted.

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3. A large-scale, longitudinal study among substance users of both sexes may be undertaken in our state.
4. Use of substances among different communities and also among different religious sects to see which community and religious sect uses substances more often.

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Quality of Life Model in Multiple Sclerosis: Personality, Mood Disturbance, Catastrophizing and Disease Severity

Afsaneh Akhane¹, Mojtaba Habibi², Zahra Izadikhah³,
Mani B. Monajemi⁴, Nina Jamshinejad⁵

ABSTRACT

Objective: The aim of current study was to investigate the interaction between factors such as personality, catastrophizing, mood disturbance and disease severity, which may affect the quality of life in patients with multiple sclerosis. The result of this study can identify the factors that have an impact on quality of life among these patients and hopefully it may lead to improve the services provided for these patients. **Design:** One hundred and thirteen participants with multiple sclerosis completed the following questionnaires: Type D Personality (DS-14), Hospital Anxiety and Depression (HADS), Illness Perception (Brief-IPQ) and Quality of Life (SF-36). The Expanded Disability Status Scale (EDSS) assessed disease severity.

Main Outcome Measures: Data was analyzed in structural equation modeling.

Results: Type D personality was associated with quality of life and the relationship was mediated by disease severity, catastrophizing and mood status.

Conclusion: Results showed a significant relationship between Type D personality and QOL. However, when the variables were added to the model, the relationship ceased to exist. These results suggest that personality traits are indirectly associated with QOL, mediated by another variable.

Keywords: Multiple Sclerosis, Type D personality, Mood Disturbance, Catastrophizing, and Quality of Life

Multiple sclerosis (MS) is a progressive neurological disorder caused by demyelination of the white matter in central nervous system, including brain and spinal cord (McDonald et al., 2001; Poser & Brinar, 2001). It is likely that a complex interaction between the auto-immune system,

¹ Mental Health Research Center, Tehran Institute of Psychiatry- School of Behavioral Sciences and Mental Health, Iran University of Medical Sciences

² Family Research Institute, Shahid Beheshti University, Tehran, Iran (Email: mo_habibi@sbu.ac.ir)

³ School of Psychology and Counseling, Faculty of Health, Engineering and Sciences, University of Southern Queensland

⁴ Department of Clinical Psychology, University of Tehran, Tehran, Iran
(Email: mani.b.monajemi@warwickgrad.net, mani.b.monajemi@ut.ac.ir)

⁵ Family Research Institute, Shahid Beheshti University, Tehran, Iran

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environmental factors, and genetic predisposition causes MS (Bol, 2010). Lack of clear etiology and effective treatment methods, as well as various physical disabilities, and significant cognition and psychological sequels to MS (Murray, 2004) are proofs, which confirm that this disease has the ability to cause gigantic negative impact on the quality of life (QOL). Previous researches has shown that MS patients report significantly lower health-related QOL than other patients with chronic disorders such as Parkinson's disease, epilepsy, diabetes, inflammatory bowel disease, and rheumatoid arthritis (Hermann et al., 1996; Rudick, Miller, Clough, Gragg, & Farmer, 1992). Furthermore, the Middle East has the highest prevalence of MS (Wasay, Khatri, Khealani, & Sheerani, 2006) and Isfahan, Iran, where data for the current research was collected, is known as a region with a medium risk of MS (Etemadifar, Janghorbani, Shaygannejad, & Ashtari, 2006).

One of the important factors affecting QOL in MS patients is mood disturbance, particularly depression and anxiety (Fruewald, Loeffler-Stastka, Eher, Saletu, & Baumhacki, 2001). Patients with MS frequently experience depression and anxiety (Jared M. Bruce & Lynch, 2011). Lifetime prevalence of clinically significant depression is approximately 50% and anxiety ranges from 19% to 34% (da Silva et al., 2011; Feinstein, 2011; Minden & Schiffer, 1990).

Patients with chronic illnesses tend to possess negative view about their disease and consider it as a big threat (Fruewald et al., 2001). Illness perception is the way in which patients make sense of their illness. This notion has been conceptualized in the common-sense model (CSM) of self-regulation. The CSM explains that people act as common sense model scientists when confronted with illness, i.e. they create a representation of their condition that affects their emotional reactions to illness (Leventhal, Brissette, & Leventhal, 2003). More than that, patients' view of their illness has an important relationship with QOL (Covic, Seica, Gusbeth-Tatomir, Gavrilovici, & Goldsmith, 2004).

Disability is another factor, which is mainly measured by EDSS. The Expanding Disability Statue Scale (EDSS) is the most commonly used quantitative system for measuring the disability status in MS (Cohen, Kessler, & Fischer, 1993). Several studies have shown that EDSS predicts QOL, especially in regard to its physical dimension (Janssens et al., 2003; Nortvedt, Riise, Myhr, & Nyland, 1999).

One of the important variables that influences QOL, is personality. Since the measurement of general health-related QOL of patients depends on their subjective judgment, it is very likely that QOL is influenced by patients' personality traits (Yamaoka et al., 1998). Moreover, personality traits are associated with other factors that affect QOL, such as treatment adherence, mood status and illness perception that will be discussed later.

Type D is referred to a personality type with a tendency towards experiencing negative emotions, i.e. negatively biased interpretation of events and negative view towards oneself (high negative affectivity, NA), paired with self-expression inhibition in social interactions (high social

inhibition, SI) (Denollet, 2005; Watson & Pennebaker, 1989). Type D personality was primarily presented for measuring personality traits in patients with coronary heart disease (CHD). It has however not been used only for patients with CHD, but also for those with other chronic medical conditions (Denollet et al., 2009), such as cancer, chronic pain, Parkinson's disease, sleep apnea, and tinnitus (Barnett, Ledoux, Garcini, & Baker, 2009; Bartels et al., 2010; Broström et al., 2007; Dubayova, 2010a; Dubayova et al., 2009; Mols, Denollet, Kaptein, Reemst, & Thong, 2012). Furthermore, in a study regarding MS patients, type D personality was proved to be significantly associated with lower scores in the QOL dimensions of MCS (Mental Component Scale of Quality of Life) and PCS (Physical Component of Quality of Life) (Dubayova, 2010b).

People with a Type D personality are more vulnerable to depression and anxiety (Svansdottir, van den Broek, Karlsson, Gudnason, & Denollet, 2012). Alterations within the Hypothalamus-pituitary-axis (HPA) and in the level of cortisol, similar to HPA changes in patients with mood disorders have been noticed in type D individuals (Sher, 2005). Previous studies on patients with chronic diseases revealed that type D personality predicts the disease severity (van den Broek, Smolderen, Pedersen, & Denollet, 2010; Williams et al., 2008) by affecting patients' health-related behaviors, e.g. studies on cardiovascular diseases showed that type D patients are more likely to engage in maladaptive health behaviors and are lower scored in treatment adherence. Type D personality individuals may face poorer prognosis in their illness course (Jared M Bruce, Hancock, Arnett, & Lynch, 2010; Williams et al., 2008). Additionally, type D personality individuals perceive catastrophic view of their illness, which may affect the course of illness indirectly (Mols et al., 2012; Williams, O'Connor, Grubb, & O'Carroll, 2011).

Regarding the QOL predicted by type D personality on one hand, and the mood status, disease severity and catastrophizing on the other hand, along with considering the fact that type D personality predicts mood status, disease severity and illness perception, this study investigates how these factors are interrelated in the prediction of QOL in individuals with MS.

Specific hypotheses are: Type D personality is associated with higher levels of (a) mood disturbance, (b) catastrophizing and (c) disease severity, which in turn are related to poorer QOL.

METHOD

Participants

Participants were patients diagnosed with MS and were members of the MS Center website. Inclusion criteria of the sample was: being 18 years old or more, not suffering from severe cognitive impairment as determined by a neurologist, having at least middle school education, and not being diagnosed as physical/psychiatric patients before the diagnosis of MS. Finally, 113 MS patients agreed to participate (86 women [76.2%], 27 men [23.8%]). They had recently (approximately twelve months ago) been diagnosed with MS. The mean age of the sample was 33 for men and 29.3 for women. EDSS scores showed that participants suffered from mild to moderate disability (mean 1.84, range 1 to 4).

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The average scores on Type D Personality nearly qualified the sample as type D personality; average score of negative affectivity was 15.27 (± 6.72), and 9.49 (± 5.91) for social inhibition.

The means and standard deviations of other self-report measures were as follows: depression (HADS-D): 7.16 (± 4.65), anxiety (HADS-A): 7.76 (± 4.73), illness perception (Brief-IPQ): 29.48 (± 11.76), physical health (SF36): 62.33 (± 21.22), and mental health (SF36): 60.1 (± 19.69).

Measures

Health Related Quality Of Life (SF-36): The SF-36 is a short-form health survey with 36 self-report items and is comprised of 8 scales combined in two summery measures: physical functioning (PF), role physical (RP), bodily pain (BP), and general health (GH) as a mental component scale (MCS), and vitality (VT), social functioning (SF), role emotional (RE), and mental health (MH) as a physical component scale (PCS) (Ware, Sherbourne, & Donald, 1992). For each scale, items are scored between 0 (poor health) to 100 (optimal health). Items refer to the past 4 weeks except for items 1, 2, 3, and 11, which ask questions about the current health condition and compare it with the information about the previous year collected from item 2. The psychometric properties of SF-36 have been established in previous researches (Montazeri, Goshtasebi, Vahdaninia, & Gandek, 2005; Norouzi K, 2006). The psychometric properties of the Iranian version of the SF-36 were also examined and the results showed a Cronbach's coefficient ranging from 0.77 to 0.90 with the exception of the vitality scale ($\alpha = 0.65$) (Montazeri et al., 2005).

EDSS: Disease severity was assessed by the use Expanding Disability Status Scale (EDSS) (Kurtzke, 1983). This scale is a method of quantifying the disability in MS. The EDSS is based on testing functional systems: pyramidal, cerebellar, brainstem, sensory, bowel and bladder, visual, mental and "other". Disability caused by MS is graded on a continuum from 0=normal neurological examination, to 10=death caused by MS (Kurtzke, 1983).

Type D Personality (DS-14): The DS-14 consists of 14 self-report items assessing type D personality with its constituent subscales, negative affectivity (NA) and social inhibition (SI) (Denollet, 2005). Items refer to recent years and are rated on a 5-point Likert scale ranging from 0=false, to 4=true. Different research showed that DS-14 is a valid and reliable instrument. For Iranian subjects, Cronbach's α was 0.77 for NA and 0.69 for SI (Zoljanahi, 2007).

Hospital Anxiety and Depression Scale (HADS): The fourteen-item Hospital Anxiety and Depression Scale is a self-report instrument that is used to measure anxiety and depression in medical settings (Zigmond & Snaith, 1983). It consists of 14 items, 7 of which are related to depression and the other 7 to anxiety. Items refer to the past week and range from 0=absent, to 3=definitely present. The reliability and the validity of the DS-14 were supported in previous researches. For Iranian subjects, Cronbach's α was 0.70 for depression, and 0.85 for anxiety

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(Bjelland, Dahl, Haug, & Neckelmann, 2002; Kaviani, Seyfourian, Sharifi, & Ebrahimkhani, 2009).

Brief Illness Perception Questionnaire (Brief-IPQ): The Brief Illness Perception (E. Broadbent, Petrie, Main, & Weinman, 2006) is a self-report questionnaire that consists of 9 items, eight of which are based on a 10-point Likert scale, ranging from 0=not at all, to 10=extremely yes, assessing emotional and cognitive illness representations: consequence, time line, personal control, treatment control, and identity as a cognitive representation, and concern and emotions as an emotional representation, with one item assessing illness comprehensibility. The ninth item is an open-ended question asking about the three important causal factors of the patient's illness. In the current study 8 Likert items were used to compute an overall score which represents the degree to which the illness is perceived as threatening or benign, as suggested by Broadbent (E. Broadbent, 2006). In order to compute the score, items 3, 4, and 7 are reverse scored and added to items 1, 2, 5, 6, and 8. A higher score reflects a more threatening view of the illness. Reliability and validity were examined among an Iranian population and the Cronbach's alpha was 0.84 (Bazzazian & Besharat, 2010).

Procedure

Participants were members of the MS Center website and were suffering from the disease. The procedure was explained to patients, and then questionnaires and written consent forms were e-mailed to them. They were notified that the participation was voluntary and that their personal information would remain confidential.

Data Analysis, Screening

Linear structural relation, LISREL 8/8 (Joreskog & Van Thillo, 1972), was used to perform Structural Equation Modeling (SEM). SEM is a standard tool that effectively assesses the relationships among different variables of the model. Variables may be observed (measured) or unobserved (latent). SEM also measures direct and indirect (mediate and moderate) effects, performs test models with multiple dependent variables, and uses several regression equations simultaneously. This is something that is not seen in simple and first generation regression models such as linear regression, which can analyze only one layer of linkages between independent and dependent variables at a time (Bollen, 1998; Chan, Lee, Lee, Kubota, & Allen, 2007).

SEM assesses goodness of fit and the estimation of parameters of the hypothesized models. The two most popular ways of evaluating model fit are Chi-Square goodness of fit test (χ^2), which is highly sensitive to sample size and none normality of the data (Kline, 2010). In order to reduce the sensitivity of the χ^2 statistic to sample size χ^2/df is used. Another popular way to solve this problem is to use indices that could be utilized for quantifying the degree of fit in a model. These indices that are supplements to the χ^2 test, include: The goodness of fit index (GFI), the adjustment goodness of fit index (AGFI), root mean square error of approximation (RMSEA),

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non-normed fit index (NNFI), and statistics in combination with the comparative fit index (CFI). A GFI of 0.90 or more, a CFI of 0.95 or more, an RMSEA of 0.06 or less, and an NNFI of 0.90 or more were used to indicate an adequate fit (Kline, 2010; Tabachnick & Fidell, 2012).

RESULTS

Preliminary Analyses

Data was analyzed for the normal distribution (Table 1). The model was estimated using Robust Maximum Likelihood (RML) estimation technique. RML is the most widely used method of estimation, and is a rather consistent and efficient parameter estimator. More than that, RML is robust against several types of deviation from the normality assumption (Vieira, 2011).

Table 1. Mean, standard deviation, and univariate normality test using Z score for skewness and kurtosis.

Variable	M (SD)	Skewness	Z-score	kurtosis	Z-score
PCS	62.33(21.23)	-.087	-.379	-.874	-1.897
MCS	60.10(19.97)	-.251	-1.089	-.870	-1.887
Anxiety	7.76(4.73)	.534	2.319	-.615	-1.335
Depression	7.16(4.65)	.536	2.328	-.579	-1.257
EDSS	1.84(0.80)	.936	4.061	.074	.160
IPQ	29.49(11.75)	-.340	-1.476	-.527	-1.143
NA	15.27(6.73)	-.140	-.610	-.818	-1.774
SI	9.49(5.91)	.313	1.359	-.542	-1.176
Multivariate				3.579	1.504

EDSS=Expanded Disability Status scale, M=Mean, SD=Standard Deviation, PCS=Physical Component Scale, MCS=Mental Component Scale, IPQ=Illness Perception Questionnaire, SI=Social Inhibition, NA=Negative Affectivity

The variance and covariance of the studied variables are displayed in table 2. All intercorrelations are statistically significant ($P \leq .001$), although the strongest intercorrelation is between physical and mental components of quality of life ($r = 0.71$, $p \leq .001$) and the lowest is between social inhibition and disease severity ($r = 0.28$, $P \leq .001$). More than that, depression has the strongest correlation with MCS ($r = -0.63$, $P \leq .001$) from among all the studied variables and

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PCS has strong correlations with EDSS ($r = -0.63$, $P \leq .001$) and depression ($r = -0.58$, $P \leq .001$) respectively.

Table 2. Covariance between scores of PCS, MCS, Anxiety, Depression, EDSS, IPQ, NA and SI.

	1	2	3	4	5	6	7	8
1.PCS	450.11							
2.MCS	297.46	398.30						
3.Anxiety	-54.66	-48.12	22.36					
4.Depression	-54.46	-47.94	14.68	21.26				
5.EDSS	-10.10	-8.89	1.42	1.42	0.64			
6.IPQ	-142.53	-125.47	28.11	28.00	4.35	137.98		
7.NA	-75.33	-66.32	20.10	20.02	1.99	39.40	45.22	
8.SI	-47.93	-42.19	12.78	12.74	1.27	25.07	17.92	34.98

EDSS=Expanded Disability Status Scale, PCS=Physical Component Scale, MCS=Mental Component Scale, IPQ=Illness Perception Questionnaire, SI=Social Inhibition, NA=Negative Affectivity

Test of the model

The hypothesized model, which included three mediator variables in the relationship between personality and QOL was tested (Figure 1). Goodness-of-fit indices for the model are: $\chi^2 = 34.48$, RMSEA=0.11, NNFI=0.95, GFI=0.92, AGFI=0.82, CFI=0.98, and SRMR= 0.04. Modification indices suggest a covariance between the Expanded Disability Status Scale (EDSS) and Physical Quality of Life (PCS). This relationship is theoretically justified, as disease severity in many studies has a stronger correlation with the physical component of QOL. The results of the final SEM model are presented in Figure 1. Fit indices for this model show a high degree of fit for the model: $\chi^2 = 20.15$, RMSEA= 0.06, NNFI= 0.98, GFI= 0.95, AGFI= 0.88, CFI= 0.99, and SRMR= 0.04.

First analysis showed that type D personality significantly predicted QOL ($\beta = -2/017$, $T = -4/209$, $P \leq 0/001$). However, after the mediator variables were added to the model, this relationship became non-significant. All the studied variables, eventually predicted 69% of variance in QOL,

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mood status being the strongest QOL prediction factor ($\beta=-0/53$) that is followed by catastrophizing ($\beta=-0/23$).

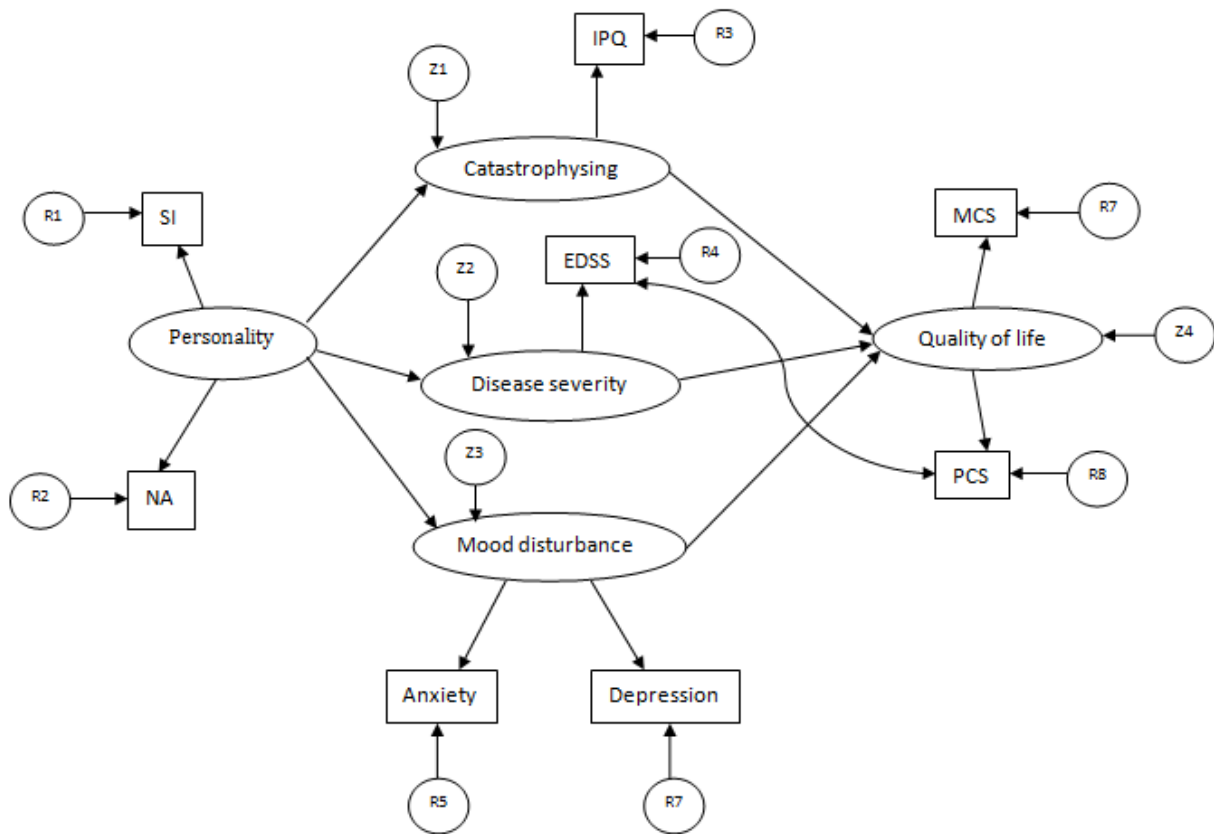


Figure 1. Model of quality of life. Z1-Z4 are equal to constant values in regression equations, R1-R8 are residuals, NA=Negative Affectivity; SI=Social Inhibition; EDSS= Expanded Disability Status Scale; IPQ=Illness Perception; MCS=Mental Component Scale; PCS=Physical Component Scale.

DISCUSSION

This research studies the physical and psychological factors that interrelated in the prediction of QOL in individuals with MS. This model examines the direct and mediated paths between Type D personality, mood disturbance, disease severity, catastrophizing, and the outcome QOL. The high fit indices for the model, confirm the effective mediating role of catastrophizing, disease severity, and mood status.

Results showed a significant relationship between Type D personality and QOL. However, when the variables were added to the model, the relationship ceased to exist. These results suggest that personality traits are indirectly associated with QOL mediated by another variable.

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Mood status is the strongest mediator in predicting QOL. This is in line with previous studies (D'Alisa et al., 2006). A model in which Type D personality on QOL is mediated by anxiety and depression in patients with tinnitus, was suggested by Bartels et al. (2010). Bartels et al. conclude in their study that type D patients, compared with non-Type D ones, suffer from higher levels of distress and get poorer scores in health-related QOL, while increased levels of anxiety and depression strongly reduce the scores in mental and physical dimensions of QOL. As a result, the impact of personality on QOL is mainly mediated by anxiety and depression (Bartels et al., 2010).

A similar model was designed for illnesses such as Parkinson's disease and multiple sclerosis. Dubayova (2013) concluded that anxiety and depression have a greater impact on physical and mental QOL than personality (Dubayova et al., 2013). Mood status therefore, was found to have a mediating role in the relationship between type D personality and QOL. Further studies showed that patients with type D personality, in comparison to non-type D patients, suffer from more psychological problems. Type D personality predicts higher scores in anxiety, depression, and perceived stress and explains a 13% of variance in anxiety, 11% in depression and 16% in perception of stress. These results are independent of disease severity (Svansdottir et al., 2012).

In this study, depression has the strongest correlation with mental QOL and is the second predictor of physical QOL. This is in line with previous studies that showed depression as an important and sometimes even the most significant predicting factor in both dimensions of QOL in multiple sclerosis patients (D'Alisa et al., 2006).

According to the proposed hypothesis, catastrophizing has a mediating role in the relationship between type D personality and QOL. Patients with type D personality consider their disease more malignant and threatening than it actually is and believe that their illness has more serious consequences, will last considerably longer, and that they will experience more symptoms than what is in fact attributed to their illness. Other than that, they are more concerned about their illness, and their disease affects them emotionally more often (Mols et al., 2012). As a result, they experience lower levels of QOL. In a study on QOL in MS patients in which combined physical and psychological factors were included in a regression analysis, the authors concluded that illness perception had an independent effect on QOL (Spain, Tubridy, Kilpatrick, Adams, & Holmes, 2007).

Furthermore, the current study revealed that disease severity stood as a mediator between personality and QOL. Several studies have demonstrated the effect of Type D personality on adverse outcomes (Pelle, Schiffer, Smith, Widdershoven, & Denollet, 2010; Williams et al., 2008). These findings suggest that negative health-related behavior in individuals with psychological distress, e.g. instance poor treatment adherence, has a negative impact on the prognosis of the disease.

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Evidence revealed that the disability status has a significant effect on physical dimensions of QOL. This finding is exactly in line with prior studies that have shown the effect of EDSS on physical health (Lobentanz et al., 2004; Shawaryn, Schiaffino, LaRocca, & Johnston, 2002; Spain et al., 2007; Twork et al., 2010). The results of the study by Janssens et al (2003), indicated that a higher level of EDSS, along with greater depression and anxiety symptoms, was associated with poorer QOL. However, when EDSS, anxiety and depression were simultaneously included in the model, EDSS remained significantly related to physical health. Therefore, the relationship between EDSS and physical scale of QOL was proved to be independent from anxiety and depression (Janssens et al., 2003).

Strengths and Limitations

One of the limitations of the current study is the use of questionnaires that rely on self-report, with the exception of disease severity which was determined by a neurologist. Participants suffered from mild to moderate disability and data was not available for severe levels of MS. Moreover, the socioeconomic status, that could affect QOL, was not taken into consideration, as social and economic factors were not part of the research objectives. The authors suggest that the effectiveness of socioeconomic status is studied on QOL in further researches. By finding the appropriate interventions that work on factors that lower the level of QOL, better life for MS patients could be brought about. Authors suggest further researches that investigate the effects that improvement of these factors by the means of different interventions has on well-being of individuals with MS. This study could assist specialists in formulating methods of maximizing the mental and physical health of MS patients and could be considered as a guide to other researches about the needed interventions for the well-being of patients with MS or other chronic diseases.

CONCLUSION

There is a significant relationship between Type D personality and QOL. However, when the variables are simultaneously added to the model, the relationship ceases to exist. This suggests that personality traits are indirectly associated with QOL, mediated by another variable. Mood status is the strongest mediator in predicting QOL, while depression has the strongest correlation with mental QOL and is the second predictor of physical QOL. Catastrophizing and disease severity have mediating roles in the relationship between type D personality and QOL. The disability status also has a significant effect on the physical dimensions of QOL.

Authors' contributions

AA and MH conceived and designed the evaluation and they conducted whole process of this study. MBM and ZI collected and interpreted the clinical data and drafted the manuscript. NJ Participated in conducting statistical evaluation. All authors read and approved the final manuscript.

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Declaration of interest

None declared

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Relationship between Suicidal Ideation, Automatic Thoughts and Stress among Post Graduate Students

Vivek Bhuchar¹

ABSTRACT

Suicidal ideation is concerned mainly with the obsessed thoughts to commit suicide. The range of the suicide depends upon the thought process including fleeting to extensive thoughts and role playing. The term automatic thought is defined as a thought that also comes in as an image in the mind seemingly automatically in response to an event, for example an event can be “a car is coming towards you”, an automatic thought can be “I am in danger!” and feeling associated is “fear, anxiety”. The thoughts that are immediate, quick that goes in the mind as a response to a situation. They are the thinking reactions that affect emotions and behaviors. Stress can be defined as a situation when one feels overloaded with pressures and if in reality that pressure can be handled or not. The aim of the current investigation is to study the relationship between suicidal ideation, automatic thoughts and stress among college going students. For this study, Suicidal Ideation scale (Devendera Singh et al., 2005), Automatic thought questionnaire (Kendall and Hollon., 1980) and Perceived stress scale (Woerner and Gardell, 1990) to be administered to the sample of 100 students in the age range of 20-24 years. The sample is to be taken from different Post Graduate colleges of Chandigarh. An inter-correlation matrix will be calculated to see the relationship between the variables. The result has shown positive and significant correlation between suicidal ideation and automatic thoughts ($r = 0.52$), significant at 0.01 level. The result has also shown positive and significant correlation between suicidal ideation and stress ($r = 0.21$), significant at 0.05 level.

Keywords: Relationship, Suicidal Ideation, Stress, Post Graduate students

Suicidal ideation concerns thoughts about or an unusual preoccupation with suicide. The range of suicidal ideation varies greatly from fleeting thoughts, to extensive thoughts, to detailed planning, role playing (e.g., standing on a chair with a noose), and incomplete attempts, which may be deliberately constructed to not complete or to be discovered, or may be fully intended to result in death, but the individual survives (e.g., in the case of a hanging in which the cord breaks), (Valley Behavioral Health System); (from https://en.wikipedia.org/wiki/Role_playing)

Most people who undergo suicidal ideation do not go on to make suicide attempts, but it is considered a risk factor. During 2008-09, an estimated 8.3 million adults aged 18 and over in the United States, or 3.7% of the adult U.S. population, reported having suicidal thoughts in the past

¹ Resource Person, Post Graduate Government College, Chandigarh

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year. An estimated 2.2 million in the U.S. reported having made suicide plans in the past year (Gliatto, 1999).

The online source called Valley Behavioral Health System (2015) defines suicide, or the act of taking one's own life, is an all-too-common and tragic public health crisis, often done in response to overwhelming, unbearable emotional pain. Suicide is especially tragic as it is a preventable death and leaves behind many loved ones and family members, also called "suicide survivors," who must grieve this terrible loss. Suicidal ideation or suicidal thoughts are a lot more common than most people let on – in fact, most people have thought about suicide at one point or another. These thoughts are quite troubling, especially as they're usually accompanied by a mental illness such as depression or bipolar disorder. Suicidal ideation is broken down into two forms: active and passive. Active suicidal ideation involves an existing wish to die accompanied by a plan for how to carry out the death. Passive suicidal ideation involves a desire to die, but without a specific plan for carrying out the death.

The world's comprehensive online Psychology Dictionary (2012), defines automatic thoughts as: 1. instantaneous, habitual, and unconscious thoughts that may affect a person's mood and actions. Helping clients evaluate the utility and objectivity of these thoughts is a central task in cognitive therapy. Once clients have learned to do this as indicated, they then attempt to generate other thoughts that are more reasonable and less incapacitating. 2. thoughts that have been habitually repeated so that they occur without conscious cognitive effort. For example, a tennis player will choose a stroke with minimal cognitive effort. Also known as routinized thoughts. "Automatic thoughts occur prior to changes of emotion, and may represent verbal thoughts and images."

Stress is a normal physical response to events that make you feel threatened or upset your balance in some way. When you sense danger—whether it's real or imagined—the body's defenses kick into high gear in a rapid, automatic process known as the "fight-or-flight-or-freeze" reaction, or the stress response.

The stress response is the body's way of protecting you. When working properly, it helps you stay focused, energetic, and alert. In emergency situations, stress can save your life—giving you extra strength to defend yourself, for example, or spurring you to slam on the brakes to avoid an accident.

The stress response also helps you rise to meet challenges. Stress is what keeps you on your toes during a presentation at work, sharpens your concentration when you're attempting the game-winning free throw, or drives you to study for an exam when you'd rather be watching TV.

The situations and pressures that cause stress are known as stressors. We usually think of stressors as being negative, such as an exhausting work schedule or a rocky relationship. However, anything that puts high demands on you or forces you to adjust can be stressful. This includes positive events such as getting married, buying a house, going to college, or receiving a promotion.

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Of course, not all stress is caused by external factors. Stress can also be self-generated, for example, when you worry excessively about something that may or may not happen, or have irrational, pessimistic thoughts about life.

What causes stress depends, at least in part, on your perception of it. Something that's stressful to you may not faze someone else; they may even enjoy it. For example, your morning commute may make you anxious and tense because you worry that traffic will make you late. Others, however, may find the trip relaxing because they allow more than enough time and enjoy listening to music while they drive.

OBJECTIVE

On the basis of aforementioned literature, following objectives have been proposed for the present investigation:

1. To study the relationship between suicidal ideation and automatic thoughts among college going adolescents.
2. To investigate the correlation between suicidal ideation and stress among college going adolescents.
3. To study the relationship between automatic thoughts and stress among college going adolescents.

HYPOTHESES

The purpose of the study was to investigate relationship of social connectedness with social competencies and self esteem. Based on the research, following hypotheses were proposed:

1. It is hypothesized that suicidal ideation was expected to be positively related with automatic thoughts.
2. It was expected that suicidal ideation was positively related with stress.
3. It was expected that there will be positive correlation between automatic thoughts and stress.
4. It was expected that there will be positive relationship among all the variables under the study.

METHOD

The sample consisted of 100 students. The data was collected from the different post graduate colleges of Chandigarh. The age range was 20-24 years and the students comprised of post graduation. The students in the sample were selected on random basis.

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Tests and Tools

1. Suicidal Ideation Scale (Devendera Singh et al., 2005). This scale consist of 25 items. Each item can be rated from 1-5 where, “1” denotes “Strongly Disagree”, “2” denotes “Disagree”, “3” denotes “Uncertain”, “4” denotes “Agree” and “5” denotes “Strongly Agree”. The 4 items in the scale are reserved scored.
2. Automatic Thoughts Questionnaire (Kendall and Hollon., 1980). The scale consist of 30 items. The each item in the questionnaire is rated from 1-5 where “1” denotes “not at all”, “2” denotes “sometimes”, “3” denotes “moderately often”, “4” denotes “often” and “5” denotes “all the time”. All the items are positively scored.
3. Perceived Stress Scale (Woerner and Gardell, 1990). The scale consists of 10 items. The each item in the questionnaire is rated from 0-4 where “0” denotes “never”, “1” denotes “almost never”, “2” denotes “sometimes”, “3” denotes “fairly often” and “4” denotes “very often”. The 4 items in the scale are negatively scored.

RESULTS AND DISCUSSION

Variables	Suicidal Ideation	Automatic Thoughts	Stress
Suicidal Ideation		0.52**	0.21*
Automatic Thoughts			0.03
Stress			

*value of correlation sign at 0.05 level

**value of correlation sign at 0.01 level

The first hypothesis that suicidal ideation was expected to be positively related with automatic thoughts is proved as the relationship is positive with correlation accounted ($r=0.52$) which is significant at 0.01 level as the critical table value at 0.01 level is 0.254, hence the value far exceeds the critical value at 0.01 level. A study was done in Malaysia among adolescents. The study was done by Choon et al., (2014) on negative automatic thoughts and its relationship with the suicidal behavior and depression. The result concluded that there was a positive relationship among the variables under study and negative automatic thoughts was found to be positively associated with the suicidal behavior. The study concluded that adolescents who are depressed and stressed have a high risk to develop automatic thought processes and then it lead to the suicidal ideas and thoughts.

The second hypothesis that suicidal ideation was expected to be positively related with stress is proved as the correlation between suicidal ideation and stress has come out to be $r = 0.21$ which is positive and significant at 0.05 level as the critical table value at 0.05 level is 0.19. Cheng and Lee (2000) concluded that adolescents in countries like Hong Kong and Singapore have more rate of suicidal thoughts as a means to cope up from the stress. The study by Joshi and Singh (2008) concluded that there was a positive correlation of suicidal ideation and stress ($r = 0.15$).

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The third hypothesis that there will be positive correlation between automatic thoughts and stress is proved but the correlation value ($r = 0.03$) is insignificant.

The fourth hypothesis that there will be positive relationship among all the variables under the study. As discussed that all the variables under study are positive where the correlation of suicidal ideation with automatic thoughts and stress is insignificant whereas the correlation of automatic thoughts and stress is insignificant but the values are positive. Hence the hypothesis is proved.

CONCLUSION

The suicidal tendencies are highest at the school and college going students. The students sometimes go for such behavior without knowing the drawbacks of this step as how much the sufferings their families, friends will have. So the stress level should not be raised to that level among adolescents or post graduate students that the negative automatic thoughts comes up in the mind and which leads to the suicidal attempts. If the stress level will be lower down and if positivity would be raised among the students at all times it will lead to the positive results and the adolescents can enjoy their full to the fullest.

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The Relationship between Alexithymia and Types C and D Personalities in People with Depression Disorders

Mojtaba Habibi¹, Mahnaz Kazemi², Nikzad Ghanbari³, Mani B. Monajemi⁴

ABSTRACT

Background and Aim: Patients with depression disorders impose annually huge costs on their families and society. With a meticulous glance to the literature, lack of sufficient studies regarding Alexithymia and Types C and D Personalities are obvious. Thus, the aim of current study is investigation the relationship of Alexithymia with Types C and D Personalities in depressed individuals.

Materials and Method: Current study through descriptive-correlation analysis examines the relationship between the mentioned variables on a sample of 150 patients. This sample was selected via simple random sampling method among all the depressed people in city of Tehran (as the statistical population) who in years 2012-2013 had visited treatment and diagnostic centers. The sample patients were asked to answer Eysenck Personality Questionnaire (EPQ) (1974), Denollet Type D Personality Questionnaire (1998), Toronto-Alexithymia Scale 20 (TAS-20) (Bagby, Parker & Taylor, 1994). The obtained data were analyzed using bivariate regression analysis and Multivariate analysis of variance (MANOVA).

Results: Findings demonstrated significant relationship between Alexithymia and Type C personality, but there was not significant relationship between Alexithymia and D personality type. In addition, there was no significant difference in terms of personality types between two genders, but women acquired higher score in Alexithymia and Type C personality than men.

Conclusion: With respect to research results, close relationship between mood and personality was noticed and women had high vulnerability comparing to men. On this basis, it is necessary for clinicians to implement specific therapy measures to decrease Alexithymia in women.

Keywords: *Alexithymia, Depression, Type C personality, Type D personality*

More than 50% of psychological impaired individuals are depressed. At least 5% of men and 9% of women experience depression in their life lives. Adverse effects of this disorder are not limited to specific social group or country or social level and many individuals with varied

¹ Department of Psychology, Shahid Beheshti University, Tehran, Iran (Email: mo_habibi@sbu.ac.ir)

² Department of Clinical Psychology, Islamic Azad University, Saveh, Iran

³ Department of Psychology, Tarbiat Modarres University, Tehran, Iran

⁴ Department of Clinical Psychology, University of Tehran, Tehran, Iran
(Email: mani.b.monajemi@warwickgrad.net, mani.b.monajemi@ut.ac.ir)

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socioeconomic status may suffer from it. Various studies suggest that personality factors can forecast mood alterations on a coarse of time. According to personality studies, personality traits are fairly consistent through coarse of life and mood alterations are less consistent. Mood alterations can be forecasted by a mean of personality scores (Gloninger, 1996). It is worth mentioning that in Gloninger's study, personality assessment baseline in normal population was predictive of 44% variance's change in depression score in the upcoming year (Gloninger, 1996). In past few decades, our society had faced enormous achievements regarding identifying risk factors of diseases and novel therapeutic techniques in curing them (Pederseh, Denollet, 2004). Acute and Chronic stresses correlate with psychopathology of various disorders (Rozanski et al., 1999). Although, defining factors of experience of this stress are less identified (Denollet, 1991). Personality is one of the most substantial factors regarding experiencing stress (Gohm, Clore, 2002). In past few years, C and D personality types had been discussed to play a major role in responding to different situations such as stressful event, disease and etc. (Gohm, Clore, 2002;Pederseh, Denollet, 2004). C personality type can be identified by emotional repression, inability to manage ones psychological behaviors, submissive attitudes, pathological kindness and agreeableness, collaborative behaviors, excessive patience, excessive control of emotional features (Lysaker et al., 2014). C personality type had been discussed as having tendency to Cancer. Theoretical construct of C personality type has stemmed from personality theory and Factor analysis studies and Cluster Analysis. Pathological role of this Type of personality in psychological and physiological aspects are on a basis of general and persistent characteristic of personality. These characteristics are negative emotions and social inhibition (Williams et al., 2011). Negative emotions considered as individual's tendency toward experiencing negative emotions in various circumstances, while social inhibition is individual's tendency to inhibit these negative emotions in social interactions (Pederseh, Denollet, 2004; Denollet, 2008).

Sifneos (1973) discussed Alexithymia for the first time. This personality construct characterized by sub-clinical difficulty in expressing one self's emotions. The core characteristics of Alexithymia are marked emotional awareness disability, social attachment and interpersonal interactions. Additionally, individuals suffering Alexithymia have problems regarding identifying and appreciating the emotions of others which can be considered as unempathic and flawed emotional reactions (Sifneos, 1973). With respect to cognitive science's approach, emotions are characterized as schemas based on information processing, which are consisted of processes and Symbolic/Non-Symbolic projections. Symbolic projections are consisted of images and words while Non-symbolic projections are consisted of somatic/splanchnic arousals, which are experienced by the time of emotional arousal. Symbolic systems such as language enables human to think about his emotional experiences and this may facilitate the process of emotional regulation. It seems that in Alexithymia there is a little ability to symbolic expression of emotions and symbolic projection of emotions are poorly interacting with images and words. Thus, they are less under the influence of cognitive control (Williams et al., 2011). Alexithymia has relationship with symptoms of depression, anxiety (Bagherian, 2007), PTSD (Pederseh, Denollet, 2004), low quality of life, low psychological wellbeing, lack of perceived social

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support, anger, constant tension, pessimism and low self-esteem (Pederseh, Denollet, 2006; Jacobs et al., 2006). For instance, recent study shows that Type D personality is considered to be one of the risk factors regarding incidence of PTSD following heart attack (Pederseh, Denollet, 2004). Studies show that, women report higher level of negative emotions comparing to men (Nolen, 2005). For instance, adult women with chronic diseases tend to experience higher level of negative emotions comparing to men (Westbrook, 2002). In another study, result shows that severity of depression is higher in old women in comparing to old men (Demura, Sato, 2003). Type D personality is considered to be one of the risk factors, which intercommunicates with psychological distresses, exhaustion and adverse clinical consequences (despite proper therapeutic intervention) (Denollet, 2004). Researches results show that Type D personality is predictive factor in diagnosing depression in individuals (Pederseh, Denollet, 2006). Wise, Mann and Hill studied the relationship of Alexithymia of Type C individuals in Psychiatric Patients and they didn't find any meaningful relationship between them (Wise et al., 1990). Furthermore, some studies have been discussed that Alexithymia and emotional suppression and they founded meaningful relationship between these two constructs. Based on aforementioned data, there is no clear relationship between Alexithymia and Type C personality. Thus, one of the goals of this study is to find a relationship of Type C personality and Alexithymia. In a study by Dalbudak, Evren, Aldemir conducted between 85 men and 234 women in Ankara University, they found out that LSAS subscale (fear, anxiety, avoidance) has a positive relationship with depression and Alexithymia (Dalbudak et al., 2012). Nicolo and Colleagues(2011) found out that elevated level of Alexithymia is correlated with boosted level of psychopathology and it is being linked to problematic interpersonal relationships. In their study, they showed that patient with Alexithymia is chiefly avoidant, dependent, passive and sadistic and suffering from depression. Colin and Kory showed that there is a meaningful relationship between Alexithymia, anxiety and lack of interpersonal interactions in individuals. Furthermore, gender's mediating role was assessed and the results showed that Alexithymic women comparing to Alexithymic men need more communion and intimacy (Carpenter, Addis, 2015). Lynn and colleagues found out that positive relationship is existed between Alexithymia and Type D personality. Furthermore, they found out that Type D personality and Alexithymia are two separated constructs (Lynn et al., 2011). Eisazadegan, Shaikhi and Bashirpour (2011) concluded that Alexithymia has positive and meaningful relationship with all of the subscales of Type D personality. Nonetheless, current study has assessed relationship between three variables of Alexithymia, Type C and D personalities among depressed individuals. Indeed, prime goal of this study was identifying the relationship of Alexithymia and Type C and D personalities among depressed individuals and comparing depressed men and women regarding Alexithymia and Type C and D personalities.

MATERIALS AND METHODS:

Research method of current study is retrospective descriptive-correlation.

Statistical society of this study was consisted of all depressed people in zone 1 of Tehran city who in years 2012-2013 had visited treatment and diagnostic centers. 150 individuals(65 women, 85 men) sample was selected via simple random sampling method among all the depressed people in city of Tehran (zone 1) and they answered Eysenck Type C personality test, Grossarth and Maticek questionnaire (Eysenck et al., 1991), Denollet Type D personality test, Toronto Alexithymia. In order to answer the questionnaire, individuals referred to specified hospital, and after signing consent forms and being presented about outlines of the study they answered to questionnaires.

Type C Personality Questionnaire:

This Questionnaire is derived from Eysenck stress questionnaire, which had 182 questions. Type C Personality Questionnaire has 35 questions that should be answered as yes/no. Score higher than 10 in this questionnaire considered as Type C personality. Type C personality is an individual who answered at least 18 questions positively (Yes). In order to insure the reliability and validity of this questionnaire, researcher translated the questionnaire with respect the phrases, which are close to examinee's culture and background. After conducting the questionnaire for the first time, questionnaire reliability was assessed by conducting for the second time between 15 individuals. Reliability estimated to be 92%, which is considered to be high according to statistical tables. With respect to validity, researcher consulted with mental health professionals, psychiatrists. It worth mentioning that content validity (logical validity) is based on logical proofs instead of statistical proofs and assessing the questionnaires with content validity needs a lot hardworking and implementing intuitive and logical approach (Pasha Sharifi, 2003). Furthermore, Cronbach's alpha for two months period reported to be 0.86 for negative emotion and 0.77 for social inhibition subscales. Cronbach's alpha in healthy individuals was assessed as 0.87 regarding negative emotion and 0.75 with respect to social inhibition. Cronbach's alpha in patient group was assessed as 0.84 regarding negative emotion and 0.86 with respect to social inhibition. Furthermore, Cronbach's alpha regarding D Type personality questionnaire assessed as 0.70 (Amad pour et al., 2007).

Toronto Alexithymia Scale 20(TAS-20):

TAS (Bagby et al., 1994) is compromised of 20 questions and it assesses three subscales of ¹DIF (Difficulty Identifying Feeling), which has 7 questions, ²DDF (Difficulty Describing Feelings), which has 5 questions, ³EOT(Externally Oriented Thinking), which has 5 questions. Items are rated using 5-point Likert scale whereby 1=Strongly disagree and 5=Strongly agree. The total Alexithymia score is sum of all responses to all 20 items (Bagby et al., 1994). In Farsi version of TAS-20 (Besharat, 2007), Cronbach's alpha regarding total score of Alexithymia and 3 subscales

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(DIF, DDF, EOT) estimated as 0.85, 0.82, 0.75, and 0.72 respectively, which showed proper internal consistency of this scale. Retest validity of this scale in a sample of 67 individuals in period of 2 weeks was confirmed as $r=0.80$ and $r=0.87$ regarding total score of Alexithymia and subscales respectively. Synchronic Reliability based on Pearson correlation coefficient between Alexithymia and emotional quotient, Alexithymia and psychological wellbeing, Alexithymia and psychological helplessness were confirmed and assessed as ($r=0.80$, $P<0.001$), ($r=0.78$, $P<0.001$) and ($r=0.44$, $P<0.001$) respectively.

RESULTS

Descriptive statistics show that Mean and SD with respect to variables are as Alexithymia (43.05, 17.29), Type C Personality (43.46, 24.19), Type D Personality (45.76, 4.35).

Table No1: Correlation Coefficient Matrix between Research's variables

	1	2	3
Alexithymia	1		
Type C Personality	0.375*	1	
Type D Personality	0.091	0.029	1

According to Table No1, Correlation Coefficient Matrix regarding variables of this study (Alexithymia, Type C personality, Type D personality) is being illustrated. Relationship between Alexithymia and Type D personality was not meaningful.

Table No2: Summary of Regression Table, effect of Personality types (D,C) on Alexithymia

Variable	R^2 adj.	Beta	F	P
Effect of Alexithymia on Type C Personality	0/14	0/50	41/22	0/001
Effect of Type Alexithymia on D Personality	0/002	0/05		0/269

As it has been illustrated above, Alexithymia has meaningful effect on Type C personality ($p<0.05$, R^2 adj.=0.14) while it doesn't have meaningful effect on Type D personality ($p>0.05$, R^2 adj.=0.002).

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Table No3: T-Test in order to assess the difference between genders in Type C personality

Variable	Mean		SD		t	df	Sig.
Gender	Woman	Man	Woman	Man			
Type C Personality	54/29	/6332	32/86	/5318	-5/99	146	0/001

According to Table No3, there is meaningful difference between men and women with respect to Type C personality. Further assessment shows that women group maintains higher level Type C personality.

Table No4: MANOVA results in order to assess Type D personality based on gender

	Statistic	Statistic Value	F	Level of Significance
Group	Peelay Effect	0.02	1.17	0.31
	Wilk's Lambada	0.098	1.17	0.31
	Hotelling Trace	0.02	1.17	0.31
	Roy's greatest root	0.02	1.17	0.31

According to Table No4, with respect to Wilk's Lambada value of F is 0.02, which is not meaningful in Alpha level of 0.05. Thus, difference of at least one variable between men and women is not discussable.

Results show that regarding Wilk's Lambada value of F is 0.870, which is meaningful in Alpha level of 0.01. Thus, difference of at least one variable between men and women can be considered.

Table No5: Effect of Alexithymia variable and its subscales between two genders

Dependent Variable	Gender	MD (SD)	DO F	Mean Squares	F	Level of Significance
Difficulty Describing Feelings(DDF)	Man	11.21(6.94)	1	339/39	/6110	0/001
	Woman	15.43(7.24)				
Difficulty Identifying Feeling(DIF)	Man	9.16(4.21)	1	692/81	/5614	0/001
	Woman	12.44(5.73)				
Externally Oriented Thinking(EOT)	Man	16.66(2.88)	1	228/72	/513	0/063
	Woman	19.34(8.36)				
Alexithymia	Man	37.00(11.53)	1	3722/8	/5118	0/001
	Woman	47.67(19.47)				

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According to the data on Table No5, DDF($F=10.61$, $Sig.=0.001$) and DIF ($F=14.56$, $Sig.=0.001$) vary between two genders.

DISCUSSION

Results showed that there is no meaningful difference between Type D personality and Alexithymia. These results are not congruent with the results of the studies conducted by Lynn and Colleagues (2011) and the study conducted by Eisazadegan and Colleagues (2011) who claimed that Type D personality maintain a positive relationship with Alexithymia. Although, these results are congruent with the result of the study conducted by Williams and Colleagues, which claims that Type C personality and Alexithymia are two separate constructs. Additionally, results of various studies show that Type C personality has a meaningful relationship with Alexithymia and it means that with increasing Alexithymia would lead to higher level of Type C Personality. These results are consistent with the results of the study conducted by Lysaker and Colleagues (2014) and Denollet (2005). These researchers concluded that Alexithymia as one of the personality features and it maintain a relationship with Type C personality. These results can be justified based on a theory argued by Sifneos and Colleagues (1973). Based on this theory, Alexithymia can be defined as inability to understand other's emotions, problem in recognizing between physical feelings and nonphysical feelings stemmed from emotional arousals (Pedersen, Denollet, 2004), turbulence of physical feelings due to emotions, few dreams or fantasies due to limited visualization power, logical/realistic thinking. According to Eysenck, Grossarth and Maticek (1991), Type C personality has a tendency toward depression and they tend to keep their negative emotions unexpressed. Thus, according to aforementioned theories it can be concluded that Type C personality and depression are somehow entangled. These results are consistent with the results of studies conducted by Dalbudak and Colleagues (2012), Nicolo and Colleagues (2011), Colin and Colleagues (2011). Based on these studies, it can be inferred that mood and personality maintain a close relationship. Results showed that with respect to gender, there is meaningful difference with respect to Type C personality. More assessment showed that women tend to have higher level of Type C personality. Based on these data, researches hypothesis was confirmed. These findings are consistent with the results of the studies conducted by Eysenck, Grossarth and Maticek (1991) and Cloninger (2006). According to aforementioned studies, Denial is one of the defense mechanisms, which is used mostly by women. Hence, women are much more prone to cancer in comparing to men. With respect to gender, no meaningful difference was mentioned in Type D personality. Thus, this hypothesis that men and women have difference in Type D personality was not confirmed. Another finding of this study showed that between men and women groups, there is a meaningful difference between Alexithymia, DIF and EOT. Further assessments show that women maintain higher level of Alexithymia, DIF and DDF. Thus, research hypothesis based on difference between men and women regarding Alexithymia, was confirmed. This finding is consistent with the results of various studies (Jukamaa et al., 1996; Parker et al., 2003; Salminen et al., 1999). This finding can be justified based on study conducted by Sifneos (1973). According to these scientists, women are willing to

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express their feeling easier than men. Although, they have more tendency toward applying repression and denial as defense mechanisms. Thus, women experience higher level and more severe episodes comparing to men. According to above-mentioned data, it can be inferred that personality and mood maintain a close relationship, as they share common specifications. Mood is a pervasive emotional pattern, which tends to repeat in individuals daily life and personality is thinking, emotional and behavioral pattern and it can be regarded as individual's character. Furthermore, it can be discussed that a dysfunctional mood may affect the personality constructs adversely and women tend to have higher vulnerability to Alexithymia and pathologic personality types. Thus, it is vital to implement proper therapeutic process regarding Alexithymia in women. It is worthwhile to implement prevention methods in order to secure this valuable part of the nature (Sifneos, 1973).

CONCLUSION

Based on results of current study, psychological treatments regarding treatment of Alexithymia is advised. Furthermore, implementing new methods such as mindfulness and group therapy may facilitate the process of identifying; expressing thoughts and indirectly it may help the clinicians in treating Alexithymia. Implementing proper therapeutic methods, regarding identifying Alexithymia by conducting correct diagnostic interview and questionnaire may be useful.

Authors' contributions

MH and NG conceived and designed the evaluation. MBM and MK collected and interpreted the clinical data and drafted the manuscript. All authors read and approved the final manuscript.

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Declaration of interest

None declared

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Leadership Dichotomy: Women are more Efficacious in Working with Diverse People

Shweta Bhatt¹, Dr. Nidhi Kesari²

ABSTRACT

It is evident since ages that gender discrimination is a common feature in all societies. Even in developed countries, the prejudices and obstacles that women have had to encounter and surmount seem almost identical. The peculiar stigma attached to women all over the world is based on religious bias. “Woman” is depicted as a temptress and is warned against in almost all religions of the world. Woman's basic stigma therefore originates in religion.

The Rig Veda says, “The wife and husband, being the equal halves of one substance, are equal in every respect; therefore, both should join and take equal parts in all works, religious and secular.” The Upanishads clearly declare that we individual souls are neither male nor female.

Rig Veda clearly proclaims that women should be given the lead in ruling the nation and in society, and that they should have the same right as sons over the father's property. “The entire world of noble people bows to the glory of the glorious woman so that she enlightens us with knowledge and foresight. She is the leader of society and provides knowledge to everyone. She is symbol of prosperity and daughter of brilliance. May we respect her so that she destroys the tendencies of evil and hatred from the society.

In ancient India, women occupied a very important position, in fact a superior position to, men. It is a culture whose only words for strength and power are feminine - "Shakti" means "power" and "strength." All male power comes from the feminine. Literary evidence suggests that kings and towns were destroyed because a single woman was wronged by the state. For example, Valmiki's Ramayana teaches us that Ravana and his entire clan were wiped out because he abducted Sita. Veda Vyasa's Mahabharata teaches us that all the Kauravas were killed because they humiliated Draupadi in public. Elango Adigal's Sillapathigaram teaches us Madurai, the capital of the Pandys was burnt because Pandyan Nedunchezhiyan mistakenly killed her husband on theft charges.

Keywords: *Efficacious, Collegial Approach, Leadership Traits, Multi-Tasking, Entrepreneurial Competency.*

¹ Research Scholar, Department of Business Administration, DDU Gorakhpur University, Gorakhpur, U.P., India.

² Assistant Professor, Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India.

Lord Buddha was the first and foremost person who not only recognised the importance of women to the society but also made an effort to enhance the social status at par to the men in respect of spiritual development which opened the door for the full participation of women in the field of religion by making them eligible for admission to what was known as the Bhikkhuni Sanghai - the Order of Nuns – that truly opened a new avenue of culture and social service and other ample opportunities to women in public life.

Spiritual human life cycle was divided into four main targets out of which Archaize, chasing materialism and sense pleasures (Kama). Holy Epic Ramayana makes it clear that these two pursuits should never be at the cost of Dharma (righteousness). In withholding dharma, both Artha and Kama can be and must be sacrificed. The ultimate goal of life is Moksha (liberation) and it can be attained only by relinquishing Artha and Kama and by strictly following a life of Dharma.

In ancient India, women occupied a very important position, in fact a superior position to men. Poet rightly said that “*Ek Nahi Do-Do Matrayen, Nar se Bhari Nari.*” That is why Women is worshiped as Shakti which means "power" and "strength". It is generally said that there is a women behind the success of each and every man. Literary evidence reveals every war was fought because of woman. For example, Valmiki's Ramayana teaches us that Ravana, the king of Lanka, and his entire clan was wiped out because of the abduction of Sita wife of Lord Rama. Ved Vyasa's Mahabharatha also tells us that Kauravas were killed because of the humiliation of Draupadi caused by Duryodhana. Draupadi is presented as having a very impressive brilliant and strong personality and is projected as the primary cause of the battle of Kurukshetra.

According to Hindu philosophy, the world is made up of four main "Yugas". These four yugas are the Satya Yuga, the Treta Yuga, the Dwapara Yuga and lastly, the Kali Yuga. Each of these four Yugas involves stages of change; of evolution; one in which not only the physical universe undergoes change, but the whole thought process and consciousness of mankind metamorphoses either for better or for worse, depending upon that particular Yuga. The entire cycle of a Yuga starts from its highest point, the Golden Age of enlightenment.

Each subsequent age is witness to a gradual decline of wisdom, knowledge, intellect, life span, physical and spiritual strength in humankind as a whole. This automatically also implies decline and destruction of dharma or righteousness as well as the status of women's in different yuga.

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In *Satya-Yuga*, women occupied a key position in every matter. Every decision was taken after consulting woman. Right & Wrong was always the point of discussion. Everyone was situated in the mode of goodness. The people of Satya-Yuga are for the most part self-satisfied, merciful, friendly to all, peaceful, sober and tolerant.

The social status of women in *TretaYuga*, also occupied key position but they were not the part of decision-making. The holy book Ramayana tells us that the *Sita* was the role model of sacrificer, which is why she emerged as the final moral touchstone of the epic.

Mahatma Gandhi interpreted Sita as symbol to advocate the idea of women's strength, autonomy and ability to protect themselves having the spiritual power rather than depend on men for safety. His Sita was like a "lioness in spirit" before which Ravana became "as helpless as a goat." For the protection of her virtues even in Ravana's custody, she did not "need the assistance of Rama." Her own purity was her sole shield.

Gandhi wanted to create a whole army of new Sitas who were not brought up to think that a woman "was well only with her husband or on the funeral pyre." He wanted them to stop aspiring to be mere wives and instead become leaders of men, teaching them the message of peace and social harmony.

More than any other modern leader, he helped to create a favorable atmosphere for women's on large scale and respectful entry into public life. Gandhi's moral backing legitimized women's right to hold political office without having to wage long-drawn battles, like the Suffragists in the West had to do to. He portrayed Sita to break the shackles of domesticity, to come out of purdah, to lead political movements and teach the art of peace to this warring world.

The Dvapara Yuga is described as seeing the first drastic decline in righteousness of humanity. The dharma bull now only stands only on two legs, so the overall moral standard of the people in the Dvapara Yuga drops immensely. In this age, adherence to the Vedas becomes less acute.

People living in the Dvapara Yuga were zealous, valiant, courageous and competitive by nature. Further, they were cosmopolitan and pleasure-seeking, and so the divine intellect ceased to exist, and it was therefore seldom that anyone was wholly truthful. Because of this life of deceit, the living standard also decreased in the Dvapara Yuga. People were plagued by ailments, diseases and all sorts of desires. After suffering from these ailments, some people came to realize their misdeeds and performed penance. Along with charity, religious activity did not go much beyond

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this in the Dvapara Yuga. While some did attempt to organize sacrifices, they did so out of ostentation, mostly seeking material benefits rather than meaningful connection with the divine.

Despite these discouraging trends, the Dvapara Yuga was also characterized by some more positive elements. Science flourished during this time period, and people experienced the spiritual in terms of subtle energies and rational choices. Further, this age played host to the events described in the great Mahabharata epic, including the incarnation of the beloved deity Krishna (Vishnu's eighth avatar) and his subsequent participation in the battle between the righteous Pandavas and their corrupt counterparts the Kauravas. Bhagvad Gita is the single most popular set of teachings in Hinduism, wherein Krishna unravels the nature of the universe for the pensive Pandava warrior Arjuna. According to the Puranas this yuga ended at the moment when Krishna died and returned to his eternal abode of Vaikuntha.

By nature Men and women are generally differ in their physical and cognitive abilities, social skills and leadership styles. Women are said to be physically weaker and emotionally stronger than men. Women tend to focus on setting high standards of performance and the attainment of results. Women are far more apt to organize and work in a structured way in multi-tasking situations. Women are inherently good. They're morally superior and don't hurt people. There've been women political leaders throughout history.

Likewise the same chemical property of women are different yuga that has been transcended to this kali yuga also, where just like Sita & Draupadi there are several examples of firm and determined women in the Kali Yuga who with their efficacious ability of leadership quality have been able to establish a great example in the history.

Margaret Thatcher the Iron Lady (20th century): launched the Falklands war; contributed to the Cold War build-up of nuclear weapons in Europe; bombed Libya; supported foreign dictators like Augusto Pinochet; privatized many British social services and national industries.

Indira Gandhi (20th Century): led India in war against Pakistan; waged an internal campaign against Sikh communities in India; imprisoned political foes and censored the press; tested nuclear weapons.

I want to see more women compete for the highest positions in their countries ... we have to break down these attitudes that pigeon-hole and stereotype people, like, what does a leader look like... well a leader looks like somebody who's a man. – Hillary Clinton, 1/29/2013

Entering the organizations was once a formidable challenge for the women. Moving from infrastructural roles of the sixties and rising to managerial roles and responsibilities which is almost a Herculean task, and rising into senior management position is an uphill struggle. For women to occupy the position of CEO's in the past scenario, which was a rarity and almost impossibility, today is a reality. The striking part of women managers is that they are very good at juggling around the tasks. One of the strongest skills is their ability is at multi-tasking. Also women managers bring with them a different style and different skills. Research also confirms

Leadership Dichotomy: Women are more Efficacious in Working with Diverse People

that women managers see things laterally, intuitively and differently. They can handle more contradictions, can tolerate more and deliver much more than men.

For women managers it is truly a case of twice the work and half the reward. It is a trying process for women to prove one again and again. However, women do feel that it is unfair to brand them as '*women manager*' or to compare them with their male counterparts. Women have journeyed a long distance to enter the corporate boardrooms, take the leadership roles in organization and institutions and work as managers and employees across the levels of hierarchies in the organization.

A study was conducted in 2008 by the US based Pew Research Centre, found that public perceptions of women leaders was much more favorable to that of men in key leadership traits. The study also reveals that women were more compassionate, honest, and creative than men. In policy matters they were "widely judged to be better than men at dealing with social issues such as health care and education" and in job performance skills women received higher marks when measured for "standing up for one's principles in the face of political pressure; being able to work out compromises; keeping government honest; and representing the interests of 'people like you'".

The study concluded that out of eight leadership traits, women get superiority in five i.e.; intelligence, honesty, outgoingness, compassion, and creativity whereas men and women were judged equal in respect of work ethic and ambition but there were one trait in which men came on the top i.e.; decisiveness. In spite of that it was found that the grooming of women was not upto the level of men.

Even though women are rated higher in leadership qualities, they still don't outnumber men in positions of leadership (even in America where the Pew survey was conducted). The reasons for this are many and have been explored exhaustively elsewhere. There are, for example, social and systemic barriers limiting women's access to higher office, as well as cultural expectations such as child rearing duties and pregnancy, which conspire against women being hired on equal terms with men. These issues are troubling and must be addressed.

The efficacy of women is natural but one of the problems faced by women in male dominated society is her acceptability as an innovator, for esightness and manager because of that the self-confidence of women is loosened. The leadership efficacy of women can be enriched by increasing their self-confidence through the development of her entrepreneurial competency which increases the profile of women as a leader. Since, they are assertive, persuasive, empathetic, willing to bear risks, openness, flexible and have a need to get things done in the interest of at large. These personality traits flared-up to create a leadership profile that is more conducive to today's diverse workplace, where dissemination of knowledge and information is

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significant, collaboration is vital and desirable teamwork which distinguishes an organization from others.

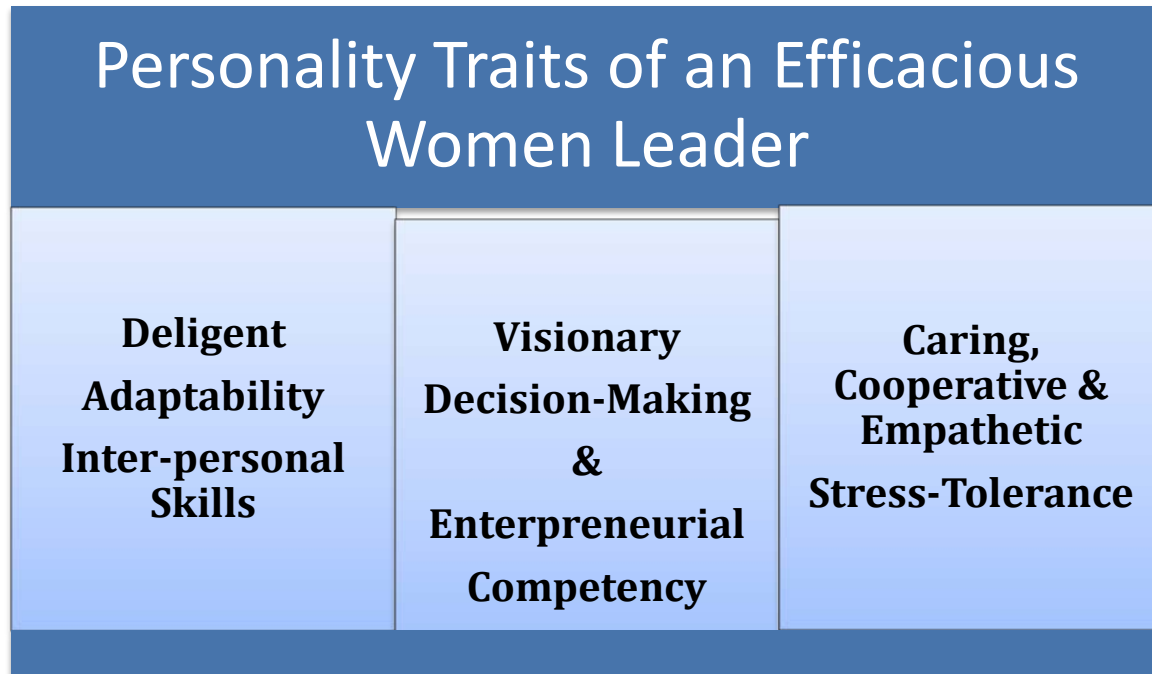
The leadership efficacy largely depends upon and can be understood by SWOT analysis of women which differs from individual to individual.

If we start with the SWOT analysis of Women's leadership traits,



The above analysis reveals a superiority of women traits as compared to men. The following suggestions would makes a women more efficacious.

Perfect Personality Traits of a Efficacious Woman Leader:



Are women creating a new paradigm of leadership?

The answer may be “yes.”

“So much of what it takes to be a leader has been historically defined by men,” *explains Libby Sartain of Yahoo! Inc.* “And while I was determined to be a leader, the last thing in the world I was going to do was to try to be like a man so that I could be taken seriously. I had to continue to be myself and create a leadership style that worked for me. I’m just not capable of being anyone other than who I am.”

This study provides preliminary evidence that women bring distinct personality and motivational strengths to leadership. They have an open, consensus-building, collegial approach to leading.

Jeannette Lichner, Managing Director, Bank of America, says, “The strong leadership profile exhibited by these women on both sides of the Atlantic points to the future. The female view that we strengthen ourselves by strengthening others is redefining leadership.” “We’re looking at a different paradigm of leadership, and it plays naturally to the strengths of women,” *says Regina Sacha, Vice President of Human Resources for FedEx Custom Critical.* “The tide has turned. The leadership skills that come naturally to women are now absolutely necessary for companies to continue to thrive. It certainly is the reverse of how it was when I first started out in the workplace. It seems like poetic justice.”

CONCLUSION

In a male dominant society, men occupy top position as leaders because men are considered as more passionate as compared to women that are why there is a basic irony prevailing in the corporate that women should work harder than men to prove themselves. Women feel constant pressure so as not to make mistake & prove their value to the organization.

There is a saying that there is a woman behind every successful man. It indicates that women always have an edge over men in respect of positive consultative behavior and providing an environment which is free from stress. If this type of environment is also made available to women, women can also prove his leadership efficacy. But in spite of all odds, women as leaders are contributing at the top and proving their productive leadership skills in shaping the economy which are strongly correlated to organizational success factors such as retaining talent, customer satisfaction, employee engagement, and profitability. Thus, efficacy not only depends upon the personality traits but also conducive and supportive positive environment by the society at large by recognizing at par.

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Dysfunctional Attitude and Self-Blame: Effect on Self-Esteem and Self-Conscious Emotions among Adolescents

Dr. Mandeep Kaur¹, Inderbir Kaur²

ABSTRACT

The present study investigated the effect of dysfunctional attitude and self-blame on self-esteem and self-conscious emotions (shame and guilt) among adolescents. 122 adolescents between 15-19 years were taken in for the study. They were students of 11th and 12th standard of various public and private schools of Patiala. All the participants were given Child and Adolescent Dysfunctional Attitude Scale (CADAS), Attribution Blame Questionnaire (ABQ), Multidimensional Self-Esteem Inventory (MSEI), Test of Self Conscious Affect- Adolescents (TOSCA-A). Results showed that adolescents high on dysfunctional attitude are low on self-esteem and high on shame whereas adolescents high on self-blame were also low on self-esteem and high on shame. The study also shows interaction between dysfunctional attitudes and self-blame.

Keywords: *Dysfunctional Attitude, Self-Blame, Self-Conscious Emotions, Self-Esteem*

Adolescence is a transitional developmental stage that starts with the onset of puberty and ends with the acceptance of adulthood roles. In all societies, adolescence denotes moving from immaturity to adulthood, and preparing for the future (Steinberg, 2008). This period involves several biological, cognitive and psychosocial changes and during adolescence youth are faced with difficulties that are cognitive, relational and biological in nature (Williams et al., 2002; Susman & Don, 2009). Indicators and predictors of adolescent's mental health are essentially connected with not only the present but future health and health-related behaviours also (Galambos & Costigan, 2003). Negative patterns of thinking and maladaptive information processing, termed cognitive vulnerabilities, have been shown to contribute to the development of depressive symptoms in adolescents who activate these vulnerabilities in response to negative events (Lewinsohn, Rhode, & Seley, 1994, 1998; Abela, 2001; Hankin & Abramson, 2002). Cognitive vulnerability theories (Beck's Cognitive Theory, Hopelessness Theory, and Cognitive-Vulnerability Transactional Stress Model) propose that individuals who possess cognitive vulnerability to depressive symptoms are more likely to develop depressive symptoms following the occurrence of negative life event than individuals who do not possess cognitive vulnerabilities. Beck assigns a central role to the "cognitive triad" in depression; namely,

¹ Associate Professor, Department of Psychology, Punjabi University, Patiala

² PhD Research Scholar, Department of Psychology, Punjabi University, Patiala

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pervasive negative attitudes that the depressed individual has towards himself, towards the outside world, and towards his future. Self-blame may also increase depressive episodes in addition to serving as a symptom of an episode. Individuals high on self-blame may have dysfunctional attitude as they lose faith and look at things from a negative perspective. Specifically, individuals high in self-criticism are preoccupied with achievement goals, and are especially susceptible to depression when they feel they are unable to meet high standards set by themselves and/or others.

DYSFUNCTIONAL ATTITUDE

According to Beck (1967) dysfunctional attitude consists of concept of arbitrary inference, selective abstraction, overgeneralization, magnification or minimization or even inexact labeling. Dysfunctional attitudes are operationally defined from three aspects according to Weissman and Beck (1978), they are vulnerability referring to the pessimistic attitudes that tend to exaggerate negative consequences of an action, whereas success perfectionism means the attitudes with the perfectionist criteria that could not bear with any mistakes done in one's actions, and, social approval is defined as dependency on others' approval for a satisfactory life of one self.

Beck's Cognitive Theory (Beck, 1987)

(Beck, 1987; Clark & Beck, 1999) proposes that dysfunctional attitudes are part of the etiology in the development of depressive symptoms. Dysfunctional attitudes are defined as cognitive distortions that interact with stressful events to produce depressive symptoms. This cognitive vulnerability theory hypothesizes that individual who use dysfunctional attitudes (*I am worthless unless I am pretty.*) are at risk for the development of depressive symptoms. Dysfunctional attitudes can be held regarding achievement (*If I fail my math test, I am a failure as a person*), interpersonal factors (*I am nobody if I do not have friends*), and/or intrapersonal factors (*I am nobody unless I am skinny*). Findings from research with both adults and adolescents revealed that dysfunctional attitude place individuals at increased risk for the development of depressive symptoms and recurrence of depressive disorders (Farmer, Harris, Redman, Mahmood, Sadler, & McGuffin, 2001; Lewinsohn, Joiner, & Rhode, 2001; Weich, Churchill, & Lewis, 2003).

SELF-BLAME

Self-blame is one of the most toxic forms of emotional abuse. It amplifies our perceived inadequacies, and paralyzes us before we can even begin to move forward. Self-blame essentially means that one assumes personal responsibility for the occurrence of a traumatic event often when it is clear that the individual is actually the victim (Janoff-Bulman, 1979). Self-blame may also increase depressive episodes in addition to serving as a symptom of an episode (Beck, 1967). According to Frazier and Schauben (1994), one psychological variable that plays a significant role in an individual's recovery from a negative event is the attributions he/she makes for cause of that event. According to researchers, there are several reasons for people to try and ascribe meaning to their misfortune, often through causal attributions (Janoff-Bulman, 1979;

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Taylor, 1983; Shaver, 1985). According to Janoff-Bulman (1979) we have certain underlying assumptions about the world we live in, which are basic to our daily activities and understanding of our world. But, negative life events like major illness, criminal victimization or an accident may challenge these basic assumptions (Perloff, 1983). The occurrence of negative event challenges an individual's belief that the world is predictable and controllable and thus leading to a search for meaning (Abramson, Seligman, & Teasdale, 1978). The attribution search for meaning after a negative life event may influence subsequent well-being. Research has shown that individuals often seem to make attributions about causality that are focused on the self (Bard & Sangrey; Bulman & Wortman, 1977; Janoff-Bulman, 1979; Miller & Porter, 1983; Abbey, 1987). Bulman and Wortman (1977) have argued that self-blame should be viewed as adaptive because it increases perceptions that one can avoid similar events in the future. The perception of future avoid ability confirms a belief in personal control over one's outcomes and thus defends against the conclusion that events are random and uncontrollable.

SELF-ESTEEM

The adolescent transition is characterized by the emergence of a more self-directed and self-regulated mind (Keating, 2004). Self-regulation is advanced through an executive suite of capabilities. A developing executive control monitors and manages cognitive resources during adolescence (Kuhn & Pease, 2006) which relates to opportunities for growth and positive development. Self-esteem is the evaluative aspect of the self concept that corresponds to an overall view of self as worthy or unworthy (Baumeister, 1998). This is embodied in Coopersmith's (1967) classic definition of self-esteem:

"The evaluation which an individual makes and maintains with regard to himself, it expresses an attitude of approval and indicates the extent to which an individual believes in himself to be capable, significant, successful and worthy".

While the level of global self-esteem is generally reported to be relatively high during adolescence, it drops dramatically when children enter adolescence (Major, Barr, Zubet, & Babey, 1999; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). The drop in self-esteem could be attributed to significant changes that take place during the early transition period. During adolescence, reported concern over social evaluation rises sharply as compared to childhood (Westenberg, Drewes, Goedhart, Siebelink, & Treffers, 2004), reported daily self-consciousness peaks (Rankin, Lane, Gibbons, & Gerrard, 2004), and adolescents more frequently interpret themselves as being the target of social evaluation (leading to such phenomena as the imaginary audience; Elkind & Bowen, 1979).

SELF-CONSCIOUS EMOTIONS

The increased vulnerability to emotional difficulties during adolescence may be related to the variety of physiological, psychological, relational and environmental changes that characterize

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the transitional period that is adolescence. According to Michael Lewis, a way of classifying the different emotions is by operating with a distinction between self-conscious and non-self-conscious emotions. Whereas the basic primary emotions do not involve self-consciousness, the more complex emotions do. The self-conscious emotions involve elaborate cognitive processes as they all come through self reflection and involve a concept of self. Self Conscious Emotions arise from attributional processes in which the individual makes an internal attribution (Lewis, 1992, 2002). Studies have shown that internal attribution for failure tends to produce guilt and shame, and internal attribution for success tends to produce guilt. Self-Conscious Emotions play a pivotal role in motivating and regulating people's thoughts, feelings and behaviour (Campos, 1995; Fischer & Tangney, 1995). Guilt and shame are characterized by feelings of distress arising in response to personal transgressions (Baumeister, Stillwell, & Heatherton, 1994; Smith et al., 2002; Tangney & Dearing, 2002; Tangney et al., 2007; Wolf et al., 2010). Shame emerges as a result of internal, stable, and global attributions about one's self (Tracy & Robins, 2004). When individuals make internal, specific, and unstable attributions it leads to feelings of guilt about one's actions, which result in negative feelings about specific behaviour (Tracy & Robins, 2004). With shame the individual focuses on one's bad self versus the bad behaviour (Tangney, 1996). Shame leads to an individual thinking how one might look to others (Tangney, Wagner, & Gramzow, 1992). Whereas in guilt, people do not focus on themselves but rather the event that caused negative evaluation (Tangney, 1996). Shame and guilt are most researched self-conscious emotions and shame has been found to be more maladaptive of the two. Research over the past two decades has shown that shame is related to a wide variety of psychological symptoms including low self-esteem, depression, anxiety, eating disorder, post traumatic stress disorder (PTSD) and suicidal ideation (Tangney, Stuewig, & Mashek, 2007). Tangney's (1992) study with undergraduates found that participants considered to be shame prone were more likely to be maladjusted.

METHOD

Sample

Out of the total 315 adolescents, a total of 122 adolescents (71 females and 51 males) were screened for the present study. The adolescents were given Child and Adolescent Dysfunctional Attitude Scale (CADAS) by D'Alessandro & Abela (2001) and Attribution Blame Questionnaire (ABQ) by Graham and Juvonen (1998). Thus, total of 122 adolescents (high and low on self-blame and dysfunctional attitude) were screened in for further study. Their age ranged between 15-19 years and they were students of 11th and 12th standard of various public and private schools of Patiala. All the participants were given Child and Adolescent Dysfunctional Attitude Scale (CADAS), Attribution Blame Questionnaire (ABQ), Test of Self Conscious Affect-Adolescents (TOSCA-A) and Multidimensional Self-Esteem Inventory (MSEI).

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Measures

MULTIDIMENSIONAL SELF-ESTEEM INVENTORY (MSEI) (O'Brien & Epstein, 1988)

Self-esteem of adolescents is measured using Multidimensional Self-Esteem Inventory (MSEI) by O'Brien and Epstein (1988). The inventory is divided into two sections with 61 and 55 items in each section respectively. The scale is a 5 point likert scale ranging from "1-completely false to 5-completely true". It measures self-esteem on 11 dimensions but for this study an overall self-esteem score is taken. This measure demonstrated an internal consistency of .80 and the reliability is .85.

CHILD AND ADOLESCENT DYSFUNCTIONAL ATTITUDE SCALE (CADAS; D'Alessandro & Abela, 2001)

The child and adolescent dysfunctional attitude scale (CADAS) is developed by D'Alessandro and Abela in 2001. It is an adaptation and extension of the Dysfunctional attitude scale (DAS; Weissman, 1979; Weissman & Beck, 1978). It includes 22 items which are rated on a 6 point likert scale ranging from 1-strongly disagree to 6-strongly agree. It measures dysfunctional attitudes i.e. depressogenic schemata in children and adolescents. The scale has an alpha coefficient of .87 and three week test-retest reliability of 22 item CADAS is .87.

TEST OF SELF CONSCIOUS AFFECT-ADOLESCENTS (TOSCA-A; Tangney, Wagner & Gramzow, 1991)

Measure of shame and guilt is Test of Self Conscious Affect-Adolescent (TOSCA-A). The measure consists of 15 scenarios (10 negative & 5 positive) that adolescents are likely to face in everyday life. Item number 2, 4, 6, 11, 13 are positive items. Each scenario is followed by 4 responses that assess guilt proneness, shame proneness, alpha pride and beta pride. In the current study response items assessing alpha pride and beta pride were dropped because our study focused on guilt and shame. The present version consisted of 15 scenarios with two response items (Guilt proneness and Shame proneness). An example is "while playing around, you throw a ball and it hits your friend's face", followed by items such as 'I would feel stupid that I can't even throw a ball' (Shame proneness) or 'I would apologize and make sure my friend feels better' (Guilt proneness). In adolescent sample the measure has high level of internal consistency (.81 for guilt subscale and .77 for shame subscale) and test retest reliability (Tangney, 1996; Tangney, Wagner, Hill-Barlow, & Gramzow, 1998).

ATTRIBUTION BLAME QUESTIONNAIRE (ABQ; Graham and Juvonen, 1998)

Attribution Blame Questionnaire (ABQ) measures the levels of self blame characteristics of subject in victimized situations. This questionnaire consists of 4 negative scenarios followed by 12 responses for each. The subject is asked to imagine him/her in a particular situation. Each response item is rated on 5 point likert scale. This measure is divided into two parts i.e. characterological self blame (CSB) and behavioural self blame (BSB), but for this study we

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combined the two to get an overall score of self blame. This measure has high levels of internal consistency at both times (.85 & .86) respectively.

Statistical Analyses

The data was processed to obtain the following information:

Analysis of Variance (2×2 ANOVA) was applied for analyzing association of Self-Blame and Dysfunctional attitudes with Self-esteem and Self Conscious Emotions in adolescents.

RESULTS AND DISCUSSION

Table 1: Comparison of Means, SDs and F-ratios for Self-Esteem in relation to Attitude and self-blame

VARIABLES	LEVELS	MEANS	SD	F-RATIO
Attitude	Dysfunctional	366.28	20.58	8.778**
	functional	391.59	35.38	
Self-Blame	High	369.85	28.38	4.525**
	Low	388.03	27.57	

**p<0.01*

p<0.05

Table 2: ANOVA Summary for the effect of Attitude and self-blame for Self-Esteem

SOURCE OF VARIANCE	SS	DF	MS	F
Attitude (A)	7931	1	7931	8.778**
Self-Blame (B)	4088	1	4088	4.525**
AB	950	1	950	1.052ns
Error	54207	60	903	

**p<0.01

*p<0.05

Ns=Non-Significant

Table 3: Comparison of Means, SDs and F-ratios for Shame in relation to Attitude and self-blame

VARIABLES	LEVELS	MEANS	SD	F-RATIO
Attitude	Dysfunctional	47.23	4.12	0.043ns
	functional	46.95	5.40	
Self-Blame	High	47.85	4.43	1.311ns
	Low	46.33	5.09	

Ns=Non-Significant

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Table 4: ANOVA Summary for the effect of Attitude and self-blame for Shame

SOURCE OF VARIANCE	SS	DF	MS	F
Attitude (A)	0.9	1	0.9	0.043ns
Self-Blame (B)	28.9	1	28.9	1.311ns
AB	364.5	1	364.5	16.559**
Error	1320.9	60	22.0	

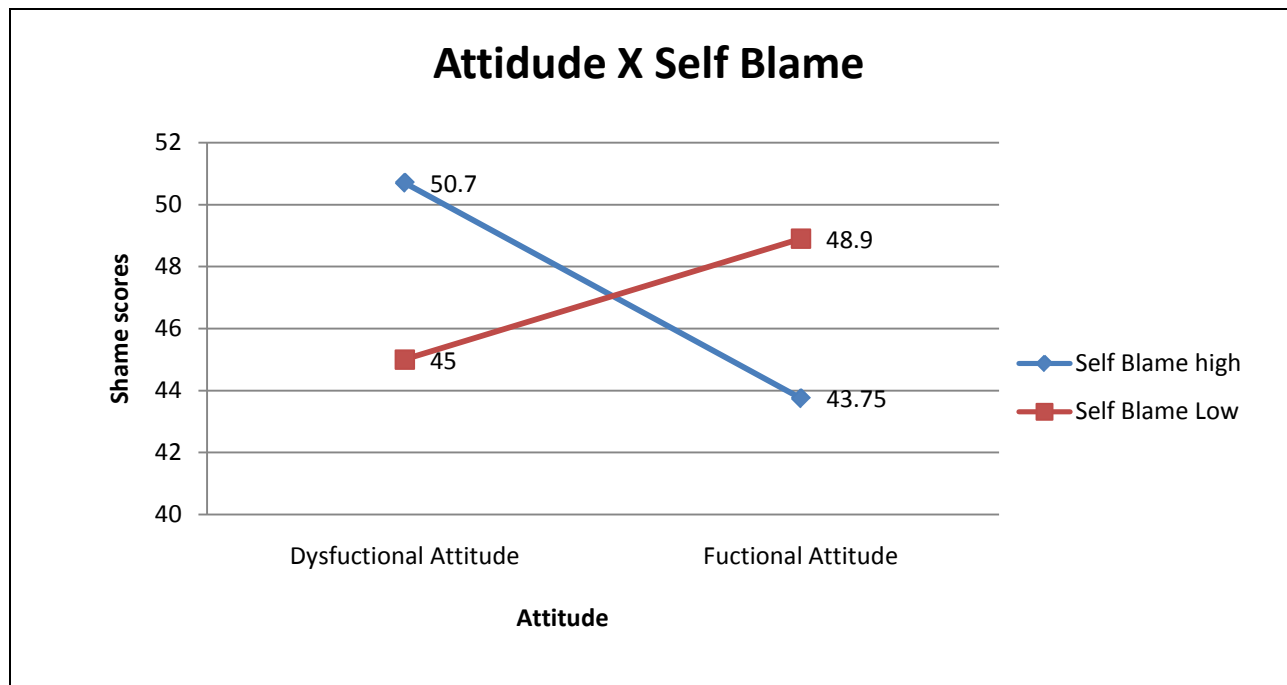
**p<0.01

Ns=Non-Significant

Table 5: Means of shame scores showing interaction of Attitude and self-blame.

Variables		Attitude	
		Dysfunctional	functional
Self-Blame	High	50.70	45.00
	Low	43.75	48.90

Figure 1: Means of shame scores showing interaction of Attitude and self-blame.



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Table 6: Comparison of Means, SDs and F-ratios for Guilt in relation to Attitude and self-blame

VARIABLES	LEVELS	MEANS	SD	F-RATIO
Attitude	Dysfunctional	49.78	6.25	1.513ns
	functional	47.86	5.15	
Self-Blame	High	50.65	5.86	5.475*
	Low	46.99	5.54	

Ns-Non significant

*p<0.05

Table 7: ANOVA Summary for the effect of Attitude and self-blame for Guilt

SOURCE OF VARIANCE	SS	DF	MS	F
Attitude (A)	45.8	1	45.8	1.513ns
Self-Blame (B)	165.9	1	165.9	5.475*
AB	16.4	1	16.4	0.540ns
Error	1817.6	60	30.3	

Ns-Non significant

*p<0.05

RESULTS

Results of 2×2 ANOVA showed that main effect of dysfunctional attitude was found to be significant [$F(1,60)=8.778$, ($P<0.01$)] as adolescents high (366.28) on dysfunctional attitude were low on self-esteem in comparison to adolescents low (391.59) on dysfunctional attitude. The main effect of self-blame was also found to be significant [$F(1,60)=4.525$, ($P<0.01$)] as adolescents high (369.85) were low on self-esteem as compared to adolescents low (388.03) on self-blame. In table no.2, adolescents high and low on dysfunctional attitude did not show significant differences on shame scores but the little variation in mean differences show that adolescents high on dysfunctional attitude ($M=47.23$) were high on shame than adolescents low on dysfunctional attitude ($M=46.95$). Similarly, the main effect of Self-Blame was also found to be non-significant [$F(1, 60) = 0.043$ ns], but the little variation in the mean differences shows that adolescents high on self-blame ($M=47.85$) were high on shame than adolescents low on self-blame ($M=46.33$). Table no. 2.1 shows interaction between dysfunctional attitude and self-blame [$(1,60)=16.559$, ($P<0.01$)]. Table no.3 shows that adolescents high and low on dysfunctional attitude did not show significant differences on guilt scores but the little variation in mean differences show that adolescents high on dysfunctional attitude ($M=49.78$) were high on guilt than adolescents low on dysfunctional attitude ($M=47.86$). The main effect of Self-blame was found to be significant [$F(1,60)=5.475$, ($P<0.05$)] as adolescents high (50.65) on self-blame were high on guilt as compared to adolescents low (46.99) on self-blame but it was contrary to the hypothesis.

DISCUSSION

The present study attempts to investigate the effect of dysfunctional attitude and self-blame on self-esteem self-conscious emotions (shame and guilt). The findings revealed that adolescents low on dysfunctional attitude were high on self-esteem. Empirical research has shown that people seek to maintain, enhance and protect their self-esteem in many ways (Baumeister, 1998). Several studies have linked high self-esteem to many positive outcomes like healthy social relationships (Murray et al., 2000; Neyer & Asendorpf, 2001; Trzesniewski et al., 2003), positive perception by peers (Robins et al., 2001) and healthy subjective well-being (Trzesniewski et al., 2003). Number of studies have demonstrated that high self-esteem is strongly related to the beliefs people hold about themselves as high self-esteem people believe that they are intelligent and attractive (Baumeister et al., 2003). On the other hand low self-esteem has been linked to number of problematic outcomes including anti-social behaviours such as depressive symptoms, bullying and health problems (Ma, 2002; Veselsk et al., 2009).

Most researchers support the idea that self-esteem decreases in early adolescence, with considerable decline in achievement, sense of worth and academic motivation (Baldwin & Hoffman 2002; Baldwin, 2008). As many as one in five youths report high self esteem in late childhood, and show decrease in feelings of self-worth during early adolescence (DuBors & Tenadale, 1999). Negative self-esteem in young adolescents is predictive of significant difficulties in emotional, behavioural and academic functioning (Silverthorn & Crombie, 2002). High self-esteem is one such factor that is likely to moderate the association between dysfunctional attitudes, negative life events, and depressive symptoms. Researchers have argued that youth possessing cognitive vulnerability to depression are able to maintain positive self-evaluations following negative life events if they possess high levels of self-esteem (Southall & Roberts, 2002). Previous research using adult samples has shown that high self-esteem buffers against the onset of depressive symptoms following negative events in individuals possessing cognitive vulnerability to depression (e.g., Abela, 2002; Metalsky et al., 1993).

The findings also show that adolescents high on self-blame were low on self esteem. Researchers (Katz & Burt, 1988) have suggested that self blame is maladaptive because it undermines self-esteem and infuses feelings of helplessness. Formica (2013) also states that self blame amplifies our perceived inadequacies and paralysis us before we can begin to move forward. The self-critical personality type is described as one that carries an incessant need for self-sufficiency and is plagued with feelings of failure, worthlessness, self-doubt and inferiority (Blatt & Homann, 1992; Blatt & Zuroff, 1992).

The view that self-blame is maladaptive has received some empirical support (Kiecolt, Glaser & Williams, 1987; Katz & Burt, 1988; Delahanty, Herberman, Fullerton, Uranso, Craig, Hayward, & Baum, 1997). In one study Katz and Burt (1988) studied post rape adjustment by asking female victims to rate their immediate post rape reactions and current reactions. The findings

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suggest that greater self-blame was associated with low self-esteem and longer recovery time. People with low self-esteem have negative expectations about their performance and as a result they may feel anxious. They tend to blame themselves when they do poorly and feel depressed. Another study showed that adolescents, to some degree, blamed their own (controllable) behaviour when explaining peer harassment. Victims were found to be low on self-esteem and lonelier in comparison to non-victimized classmates (Graham & Juvonen, 2002).

Further, the research findings showed no significant differences for shame in adolescents high and low on dysfunctional attitude but the mean trends show that adolescents with dysfunctional attitude were high on shame in comparison to adolescents low on dysfunctional attitude. At its most basic level the individual's appraisal of an event determines the kind of emotion(s) one experiences. Norms become more important in adolescents life (Linn & Songer, 1991). With shame, an individual put emphasis on one's "bad self" versus the "bad behaviour" (Tangney, 1996). It is the "the sense of exposure" when individual thinks about how one might look to others (Tangney, Wagener, Gramzow, 1992). Previous researches indicate that proneness to shame is related to wide variety of psychological symptoms including dysfunctional attitude, low self-esteem, anxiety, eating disorder symptoms and suicidal ideation (Tangney, Stuewig, & Mashek, 2007). Beck's Cognitive Theory (Beck, 1987; Clark & Beck, 1999) conceptualizes dysfunctional attitude as a cognitive vulnerability that includes negative self schemas containing cognitive distortions. Shame involves a negative evaluation of central aspect of self (Tangney, 1999) and earlier studies have shown that shame proneness is associated with depressogenic attribution style (Harder & Lewis, 1987; Hoblitzelle, 1987). Tangney's (1992) study revealed that shame prone adolescents were more likely to be psychologically maladjusted. In addition Self Discrepancy Theory (Higgins, 1987) also states that shame is dejection related emotion because it arises from a perceived discrepancy between actual self and ideal self.

The main effect of Self-Blame was also found to be non-significant, but the little variation in the mean differences shows that adolescents high on self-blame ($M=47.85$) were high on shame than adolescents low on self-blame ($M=46.33$). Greenberg, Watson, and Goldman (1998) emphasized the role of the incapacity of the self to counter self-critical attacks as major factor in the depressogenic process, along with the importance in attending to the harsh negative affect, such as shame and helplessness that results from self-criticism (Greenberg & Paivio, 1997). The findings get support from Beck's Content Specificity Theory states that each emotional state and psychological disorder has a specific cognitive profile (Beck, 1976; Clark et al., 1999). Subjects who attributed responsibility for negative events to themselves and positive events to the responsibility of others, had a high level of depressive complaints (Berg-Cross, 1997). In a recent study to evaluate their new scale called the sensitivity to put-down scale, Gilbert and Miles (2000) found that self-blame for criticism was associated with social anxiety, depression and shame. Table no. 2.1 shows interaction between dysfunctional attitude and self-blame. Seligman's (1975) theory of learned helplessness suggests that depression results from a belief in

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the uncontrollability of outcomes. According to Beck's (1967) theory of depression, the depressed individual blames him/herself for negative outcomes, particularly personal failures. Self-blame for negative events has been shown to be predictive of depression, both concurrently and longitudinally, in the face of negative events that are perceived as important (Mittelstaedt & Wollert, 1991; Wollert & Rowley, 1987). Compared to attributions, self-blame seems to have higher concurrent and longitudinal associations with mood (Wollert & Rowley, 1987). Furthermore, high self-blame is also associated with increased severity and length of depressive episodes (Beck, 1963). It may also lead to enhancing the depressive episodes in addition to serving as a symptom of an episode (Beck, 1963). Harper et al (2002) noted that when a person becomes depressed, his cognitions change. One becomes pessimistic, more critical of oneself and is more likely to blame himself for all the bad situations. Seligman et al (1988) found that self-blaming attributions for failure were related with severity of depression in both unipolar and bipolar depression. Researches in mainland China and with western adolescent samples (Adams et al; Shaher et al., 2004; Abela et al., 2006) have also found that self-blaming strongly predicted depressive symptoms. Adams and colleagues (2009) found strong support for the theory by demonstrating that both dependency and self-criticism represented vulnerabilities to prospective depressive symptoms in at-risk youth. The majority of studies, however, only found support for selfcriticism as a vulnerability factor (Shahar et al., 2004) suggesting that this personality predisposition may be especially problematic during adolescence.

Adolescents high and low on dysfunctional attitude did not show significant differences on guilt scores but the little variation in mean differences show that adolescents high on dysfunctional attitude ($M=49.78$) were high on guilt than adolescents low on dysfunctional attitude ($M=47.86$). Guilt, involving a negative evaluation of specific behaviour implies internal, specific and rather unstable attributions. According to Attributional Theory of Depression (Gotlib & Abramson, 1999), guilt is less maladaptive and contributes less to depressive symptoms as compared to shame. The studies of Fontaine et al., (2001), Harder et al., (1992), Stuewig & McCloskey (2005), and Tangney, Wagner and Gramzow (1992) used Test of Self Conscious Emotions (TOSCA; Tangney et al., 1990) and the results suggested that only shame but not guilt has effect on depression. Guilt may not be bad as guilt prone individuals appear better able to empathize with others and to accept responsibility for negative events, less prone to anger than shame prone people but when angry express directly. Research has also shown that the success of cognitive therapy for treating depression may be linked to the positive effects of regulating shame into more adaptive emotions such as guilt. On the contrary to these studies, empirical studies provide evidence for association of guilt to depression (Alexander, Brewin, Vearnals, Wolff, & Leff, 1999; Ghatavi, Nicolson, MacDonald, Osher & Levitt, 2002). Changes in the strength of emotions emerge, as guilt typically increases during adolescence, and shame decreases from adolescence into middle adulthood (Orth, Robins, & Soto, 2010; Walter & Burnaford, 2006). Overall, during early adolescence, changes emerge in the quality of the emotions as the

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perceived controllability of the situations, as well as emotion expectancies, increasingly affect moral decision making (Graham, Doubleday, & Guarino, 1984).

The main effect of Self-blame was found to be significant [$F(1, 60) = 5.475, (P, 0.05)$] as adolescents high (50.65) on self-blame were high on guilt as compared to adolescents low (46.99) on self-blame but it was contrary to the hypothesis. Victims who blame themselves feel more guilt, shame and are more likely to experience post-traumatic stress disorder (Arata & Burkhart, 1996). Guilt reflects feelings about actions that are inconsistent with internalized standards and thus individual blames oneself for inappropriate behaviour.

The present study helps us to understand various issues of adolescence and how our attitudes can influence our perceptions and affect an adolescent emotionally. One tries to form a stronger self and have a positive attitude towards life. Emotional fluctuations are at peak among adolescents as they fight to make an identity in the society. This study has also shown how culture can influence one's emotions and cognitions.

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Predictors of Early Adolescent Girls' Achievement Motivation

Pranita R. Jagtap¹

ABSTRACT

The present research was an exploratory research to study the predictors of achievement motivation of early adolescent girls- socio-economic status, intelligence and academic achievement. The sample of this research work consists of 132 girls studying in secondary schools of Pune City, Maharashtra. Projective test of achievement motivation by Deo-Mohan (1986) was used to measure achievement motivation. To assess economic, educational and social status of the family, Socio-economic scale was used, developed by Dubey and Nigam (2005). Raven's (1960) Standard Progressive Matrices (SPM) was used measuring IQ. However, academic achievement of the students was determined on the basis of school mark percentages. Pearson's correlation coefficients and stepwise multiple regression was done to investigate the best pattern of variables for predicting achievement motivation. Data analysis revealed that achievement motivation of students was significantly correlated with academic achievement. No significant correlation was found between scores of achievement motivation, intelligence and socio-economic status. Results of multiple regression revealed that academic achievement was significant predictor of achievement motivation.

Keywords: *Achievement Motivation, Academic Achievement, Socio-economic status, General Intelligence*

India is rapidly changing. The process of urbanization and industrialization is rapidly taking place leading to boom in information technology. India has experienced significant economic growth in recent years (Yallapragada, Toma, & Roe, 2007). Despite this progress gender differences have been observed in educational and occupational achievement. (Farmer 1987; Sophie van der Sluis Vinkhuyzen Boomsma & Posthuma, 2010). Although there are a number of powerful women in India like Sudha Murthy, Kiran Bedi, Chanda Kochhar, Mary Kom, Saina Nehwal etc. but for the common woman in India, generally the society places her in an endless cycle of duties, which obliterates her identity as well as restrains her agency within the society. Still women face a range of problems in the areas like education, career, security and basic needs satisfaction etc. Why? Are these because of differences in achievement motivation?

McClelland (1961) defines achievement motivation as 'Success in competition with some standard of excellence'. He proposed that there are two types of achievement motivation, one oriented towards *avoiding failure* and the other towards *attaining success*. The influence of an

¹ Research Associate- Jnana Prabodhini's Institute of Psychology (JPIP), Pune, Maharashtra, India

individual's needs and desires both have a strong impact on the direction of persons behavior. Achievement motivation is a desire to strive and excel in competition with the wholehearted purposeful deliberate act the individual is engaged in which involves an urge to get to the top in the field of one's liking or accomplish something unique (Deo-Mohan, 1986). Achievement motivation is one of the key elements that will determine the success of individual and it is important for making scholastic and occupational choices and success (Farmer 1987).

McClelland and his associates (1969) identified characteristics of the people with a strong need for achievement i.e. Person sets challenging but realistic goals, takes initiative, more persistent, self motivated, goal oriented, assumes personal responsibility for problem solving, prioritizes tasks to attain goals, takes calculated risks.

What are the factors which affect the level of achievement motivation? Educational and psychological research has identified various factors that play a role in predicting achievement motivation. A review of the literature indicates that factors like Socio-economic status of the family, environment at home, individual and school experience, intelligence etc. are related to achievement motivation (Ojha, 1991; Eccles & Harold 1993; Pandey 2008).

Adolescence is a period of rapid physical, emotional and cognitive development. It is a time when future directions and career pathways are determined (Carnegie Council on Adolescent Development, 1989). Therefore objective of this study is to study the predictors of achievement motivation of early adolescent girls.

Socio-economic status and achievement motivation

Kuppuswamy (1980) considered that education, occupation and income of parents are the important factors of socioeconomic status of family. Higher and middle socioeconomic status families provide better facilities such as better residential areas, good home library, periodicals, newspapers etc. to their children which lead to high achievement motivation. Low socioeconomic status families can't provide such type of facilities, which leads to low level of achievement motivation.

Cassidy and Lynn (1991) show that socioeconomic and family background is predictive of nAch. Agrawal (1974) investigated the correlations between achievement motivations across SES, findings revealed that achievement motivation was positively significant with SES. Study by Parikh (1976) revealed positive correlation between achievement motivation and SES. However few research studies showed no significant correlations between achievement motivation and SES. Adsul and Kamble (2008) studied the impact of economic background of family on achievement motivation of under graduate students. Finding revealed no significant differences in achievement motivation across three levels of economic background of family. Crystal, Burns, and Barbara (2011) examined achievement motivation orientation in preschool children from low and middle income families. Children did not differ in motivation orientation. Same results

were found in the study conducted on Muslim and non Muslim students, studying in X class secondary schools by Siddiqui & Parveen (2014). After reviewing above research articles it was observed that individuals' desire to strive and an urge to get to the top is not influenced by socio-economic status of students' family.

Here older studies indicate that SES and achievement motivation are related, but newer studies have shown no relation.

Achievement motivation and Academic Achievement

Studies show that achievement motivation of adolescents play a significant role in determining their academic achievement. Research review showed that those who are high on achievement motivation are high on academic achievement. Gupta, Devi & Pasrija (2012) conducted study to find the effect of achievement motivation on the academic achievement of adolescents. Results revealed that male & female adolescents with high achievement motivation demonstrated significantly better academic achievement as compared to low achievement motivation of adolescents. Researchers conducted study on different groups to explore relationship between achievement motivation and academic achievement (Noorjehan and Wajiha ,2009, Pandey 2008, Alam 2001 ,Devanesan 1999, Harikrishan, 1992, Baskaran 1991, Saraswat 1988) all reported that there was a significant positive correlation between achievement motivation and academic achievement.

Gender differences in Achievement motivation

The difference in the achievement motivation between males and females has always been a topic that psychologists are interested in. Article that reviews the results of several studies suggests that men are more achievement oriented as compared to women (Farmer 1987). Another review across gender differences in achievement motivation is taken by Meece, Glienke, Burg (2006) indicated that motivation-related beliefs and behaviors of girls and boys continue to follow gender role stereotypes. Research conducted on students showed that male students are high on achievement motivation than female students. (McClelland J.1983, Awasthi 2002, Adsul & Kamble 2008, Qizhen Zhu 2009,). A study conducted by Sophie van der Sluis Vinkhuyzen Boomsma & Posthuma (2010) revealed significant sex differences in the factor future orientation. Women think less about the future than men. Research by Schultheiss, Brunstein (2001) showed that women indicated significantly higher nAffiliation than men, but they were not high in nPower, and nAchievement on TAT measure. Darshan (2001) studied 1400 students from 11th class. The study revealed that female students were highly achievement oriented in comparison to male students. Some of the researches showed no significant gender differences in achievement motivation. (Elias, Rafaei & Rahman 1995, Behera, 2002 Kaushik & Rani, 2005, Nagarathanamma and Rao, 2007 Adsul and Kamble, 2008)

Achievement motivation in relation to Intelligence

Gagné & Père (2002) studied 200 female high school students. Study results reported that IQ and motivation were not correlated but researches by Behera (2002) & Varma (2003) found positive and significant correlation between intelligence and achievement motivation.

In Indian context, Gupta (1983) and Singh R. (1986) found significant correlation between achievement motivation and Intelligence. Chauhan (1984) found that achievement motivation of students differed significantly at different levels of intelligence viz. high, middle and low. Mian (1988) found that high intelligence scorers are high on nAch as compared to low scorers in intelligence.

Some research studies revealed close connection between achievement motivation and intelligence while few others showed no connections.

OBJECTIVES

- To study the correlation of achievement motivation with socio-economic status, intelligence and academic achievement
- To study the predictors of achievement motivation in early adolescent girls

METHOD

Research design

An exploratory method of research was used in this research.

Participants and procedure

Total 132 participants were involved in research from Marathi medium schools in Pune city located in Maharashtra. Sample was incidental. Before data collection permission from school authorities and consent from participants were taken.

Measures

1) *Deo-Mohan Projective Test of Achievement motivation test (n-Ach)*

This test is developed by Deo, P. and Mohan A. (1986). It is projective test which measures achievement motivation of adolescents. There are two separate sets for boys and girls. Students will be asked to see the picture carefully for 30 seconds and write story within four minutes with the help of four questions given in the test. Test-retest reliability and Inter scorer reliability coefficients are high (Between research scholars and lecturers 0.91). The test validated against an internal criterion- a local constructed scale of achievement motivation.

2) *Socio-economic Status scale (Urban)*

Socio-economic scale is developed by Dubey L. and Nigam B. (2005), which assesses economic, educational and social status of the family. Test-retest reliability of the test is

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found to be 0.81 and validity measures by judges; correlation coefficient of scores of these judges is 0.62. Norms were developed on the basis of sample of 520 student representative of various socio economic strata. Norms are computed considering normality.

3) Standard Progressive Matrices (SPM)

This is a figural test of intelligence measuring general intelligence and ability of reasoning and problem solving (Raven, 1960). This test has high test retest reliability. Convergent validity is ranging from 0.49 to 0.81. Indian norms are available in percentile ranks.

4) Academic Achievement

School marks of students are considered as their academic achievement. Term exam conducted in schools and total marks in theory papers were converted into percentages. Official records of students were considered as an Academic Achievement.

RESULTS & DISCUSSION

The Data was collected and was analyzed using SPSS (version 17). Results of correlation and multiple regressions are given below-

Table 1. Pearson's correlation coefficients between achievement motivation and socio-economic status, intelligence and academic achievement

	Achievement motivation	General Intelligence	Socio-Economic Status
Intelligence	.12		
Socio-Economic Status	.01	-.01	
Academic Achievement	.35***	.37***	.09

*** $p < .001$

Achievement motivation of students was significantly correlated with academic achievement of the students $r = .35$, $p < .001$. It shows that those who were high on achievement motivation also get higher academic achievement in school exam. Their desire to strive and excel, act towards goal is reflected in their academics. Various studies revealed that achievement motivation of students plays a significant role in determining their academic achievement (Noorjahan and Wajiha, 2009, Pandey (2008), Alam (2001), Devanesan (1999), Harikishan (1992), Baskaran (1991), Saraswat (1988). Current finding is in congruence with earlier findings.

No significant correlation was found between scores on achievement motivation and intelligence. It demonstrates that students with high intelligence didn't show high achievement motivation or

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vice a versa. Same finding was observed in studies by Gagné & Père (2002), they studied 200 female high school students. Current finding was not supported in earlier research.(Behera, (2002) & Varma, (2003) Gupta, (1983) and Singh R., (1986).

Socio-economic status was not correlated with intelligence, achievement motivation, and academic achievement. It means influence of socio-economic class which students belong to can't predict their achievement motivation, academic achievement and level of intelligence. Adsul and Kamble (2008) studied under graduate students, Day and Burns (2011) studied preschool children and Siddiqui & Parveen (2014) X class secondary students, though the sample was different in all studies results were same which denoted no significant correlation between socio-economic status and achievement motivation. So here statement by Kuppaswamy (1980) was rejected that higher and middle socioeconomic status families provide better facilities which lead to high achievement motivation. Current results were contradictory with studies by Cassidy and Lynn (1991), Agrawal (1974) and Parikh (1976) which indicate positive relation between nAch and SES.

Table 2. Regression Analysis Summary for Variables Predicting Achievement Motivation

	B	SE B	β
Constant	-11.77	4.90	
Academic Achievement	0.03	.01	.35***

Δ Note: $R^2 = .12$ $R^2 = .12$ *** $p < .001$

A stepwise multiple regressions are carried out in order to investigate the best pattern of variables for predicting achievement motivation. Academic achievement explains 12% of the variance in achievement motivation scores. Achievement motivation was associated with academic achievement. Socio-economic status and intellectual ability were not included in the analysis as they were not found to be significant independent predictor of achievement motivation.

CONCLUSION

- Students' achievement motivation was significantly correlated with academic achievement.
- There was no significant correlation was found between scores of achievement motivation and intelligence.
- Achievement motivation and socio-economic status was not correlated with intelligence.
- Results of multiple regression revealed that achievement motivation was associated with academic achievement, explains 12% of the variance in achievement motivation. Socio-

economic status and intellectual ability were not included in the analysis as it was not significant, independent predictor of achievement motivation.

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Prevention, Treatment of Alcohol and Suicidal Behaviour of Commercial Sex Workers in Bengaluru: a Joint Venture of a Government Hospital and an NGO

Vaniprabha G. V¹, S. G. Jadhav²

ABSTRACT

The purpose of this study was to explore the pattern of alcohol use, mode of suicide and extent of depression among 200 female commercial sex workers (CSWs) in Bengaluru, India and use *Karma yoga* principles of Shrimad Bhagavad Gita as a tool for Cognitive Behaviour therapy (CBT) for a period of 6 weeks to maintain abstinence after a short detoxification programme of 2 weeks and lower their depression. A 3 month follow up indicated they had maintained abstinence for that period and had not attempted suicide also.

Keywords: *Commercial Sex Worker, Suicide, Alcohol Dependence.*

Commercial sex work is widespread in India, although it is currently a contentious issue [1]. There are 6 million female sex workers in India, with 35.47 percent of them entering the trade before the age of 18 years [9]. There is an increasing evidence that the volume of alcohol consumed, the pattern of the drinking [2] and extent of Depression is relevant for mode of suicide in this population.[7].

There is an increasing evidence that the volume of alcohol consumed, the pattern of the drinking [2] and extent of Depression is relevant for mode of suicide in this population.[7]. CSW's undergo lot of trauma in their lives frequently showing signs of Depression, anxiety and post traumatic stress disorder leading to symptoms of worthlessness, hopelessness, extreme guilt, death wishes and finally attempting suicide. Substance abuse has seen to play a significant role in the life of these sex workers; they try to procure these for themselves as a means to cope with their psychological conditions of depression [3].

¹ Currently Perusing Ph.D. At Karnatak University Dharwad

² Associate Professor, Dept of Psychology, KCD, Dharwad

DESIGN

This longitudinal study was conducted at the Outpatient Department of Psychiatry, Bangalore Medical college and Research Institute, Bengaluru, India.

150 Female Commercial Sex Workers were chosen for this study.

HYPOTHESIS

There will be a difference in the mode of suicide attempt depending on the pattern of alcohol use among the two categories of commercial sex workers.

CBT using Karma yoga principles will help them maintain abstinence and lower their depression.

Inclusion Criteria

Written consent was taken from all the subjects.

Women above the age of 18 years up to 50 years

Women should be engaged in Commercial sex activity

They should be consuming alcohol and must have attempted suicide.

Exclusion Criteria

Women should not have any other physical co-morbidities

Women with HIV and STD's were ruled out.

METHODOLOGY

Women in sex trade since 1 year or less named as *Beginners* and those who were into this trade for more than 1 year onwards termed *Established*.

150 Women who were classified as Beginners and Established were chosen for this study after a written consent all of them had completed education up to 10th standard they were from a low to middle socio economic status and majority of them belonged to Hindu religion. The quantity and type of alcohol consumed by them was taken on a proforma. To ascertain the number of suicide attempts, mode of suicide and severity of Depression **Columbian Suicide History Form (CSHF)** and **Hamilton Rating scale for Depression (HAM-D)** was administered consecutively[3].

RESULTS

70 CSW'S were identified in the Beginners group which was again subdivided into 2 groups based on drinking pattern and mode of suicide attempt.

Age group was 18 to 28 years

Alcohol history and pattern suggested that they were consuming Beer 2-3 bottles /day, there was no binge drinking. This group had 58 women who had attempted *suicide atleast once* in the past 1 year and the mode was drowning as per (CSHF).

While, the remaining 12 CSW's in this group drank wine 2 bottles/day, had drinking pattern from afternoon and had attempted *suicide two times* in the past 1 year through the use of poison and insecticides as per (CSHF) table I.

TABLE I

Indicates the Alcohol Pattern and Mode of Suicide Attempt among Beginners CSW's Age 18-28 Years

No	ALCOHOL	DRINKING PATTERN	SUICIDE
58	BEER 2-3 BOTTLES/DAY	NO BINGE	1 ATTEMPT HANGING
12	WINE 1-2 BOTTLES/DAY	NO BINGE	2 ATTEMPTS ORAL POISON

The **80 Established CSW'S** ranged between the age of 30 to 45 years. Alcohol history and pattern suggested that they were consuming 2-3 quarters of Whisky, Rum or gin /day, there was binge drinking. There had been *3-4 attempts* in the past 2 years and the mode was hanging, unknown tablets as per (CSHF) Table II.

TABLE II

Indicates the Alcohol Pattern and Mode of Suicide Attempt among Established CSW's Age 30-45

No	ALCOHOL	PATTERN	SUICIDE
80	WHISKY , RUM, GIN	2-3 QUARTERS/DAY	3-4 ATTEMPTS
		BINGE DRINKING	HANGING, UNKNOWN TABLETS

PRE COGNITIVE BEHAVIOUR THERAPY (CBT) INTERVENTION ASSESSMENT

Pre CBT intervention assessment for Severity of depression was done using HAM-D .

The scores for both the groups Beginners and Established were significantly higher, the score was 16 respectively.

A short detoxification programme of 2 weeks was planned by the psychiatrist using pharmacological medicines and after that they were taken up for Cognitive Behaviour Therapy (CBT)[10].

COGNITIVE BEHAVIOUR THERAPY WITH KARMA YOGA

Karma yoga principles of Shrimad Bhagvad Gita[11] that every man is destined to do some karma or work and that these women have been destined for the work they have chosen was explained to them[7].

There is no shame or guilt in the work they do but they are not destined to loose their life by consuming alcohol and atmahatya (suicide) a greatest sin according to Karma Yoga[11].

These were told in the form of stories from the puranas, especially Garuda purana (scripture of Hinduism) as a main CBT technique which lasted for 4 weeks. They were met twice a week and each session lasted for 45 minutes. These techniques were used to maintain abstinence. A three month follow up showed that there was abstinence and no suicide attempt[8].

POST INTERVENTION ANALYSIS

The HAM-D scores post CBT intervention for both groups was 10 were analysed using a simple t test and the values were significant at 0.001 level which indicated that there was a significant improvement in the levels of severity of depression.

PRE AND POST CBT INTERVENTION HAM-D SCORES FOR BOTH THE GROUPS WITH “t” ANALYSIS

TABLE III

Indicates the Level of Significance of Pre and Post Intervention Ham-D Scores

PRE INTERVENTION	POST INTERVENTION	SIGNIFICANCE
16	10	0.001 level

DISCUSSION

There was a very strong relationship between the drinking pattern and the number of years into CSW activity.

ALCOHOL

Beginners were consuming beer and wine while Established group were consuming whisky, rum and gin and binge drinking was seen.

Drinking pattern had a significant effect on the mode of suicide attempt and the number of attempts.

CBT using Karma yoga principles helped them maintain abstinence and lower their depression.

SUICIDE ATTEMPT

Beginners had 1 or 2 attempts and their mode was drowning or oral poisoning.

Established group had 2-4 attempts by hanging or unknown tablet consumption

Both the groups were cautious not to use burns as a mode of attempt which was significant.

During interview, they expressed this concern that if they fail to complete suicide due to burns then their life is scarred permanently as they would not be able to carry out their commercial sex activity being their primary concern.

NGO

An NGO which had referred them to our Government Hospital for treatment of Alcohol and Suicide prevention followed up the cases and later appointed them as “OUT REACH WORKERS” to help identify and counsel the CSW’S who were into alcohol and depression to seek the help for Treatment and Prevention modules for CSW’s.

OUT REACH WORKERS

Nearly 150 CSW’S who have quit alcohol have been appointed as outreach programmers in various areas of Bengaluru through the NGO and they create awareness about Alcohol and it’s ill effects through organising street plays, dance- drama etc.

Out Reach workers create awareness about diseases like HIV, AIDS, STD’s treatment for the same. ART treatment etc.

Hygiene required for a sexual worker.

Use of protection methods for safe sex.

MAJOR FINDINGS

The Beginners Commercial Sex workers group consumed Beer and wine and had 1 -2 suicide attempts, while Established Commercial Sex workers group consumed whisky, rum ,gin and had 2-4 suicide attempts which was different from the Beginners group. Cognitive behaviour therapy using karma yoga principles was taken up for both the groups and this helped them maintain abstinence and the severity of depression[6] had also lessened with no attempts on life which lasted till a 6 month follow up.

CONCLUSION

This study enhanced the hypothesis that there is a strong relationship between the pattern of alcohol and mode of suicide attempt among female commercial sex workers.

HAM-D scores post CBT had a significant decrease in the scores [10] in both the groups indicating the decrease in the severity of depression.

After 6 week of CBT using Karma yoga principles, they maintained abstinence.[11]

A follow up of 3 months duration ensured they were abstinent from alcohol and had not attempted on life during that period.

Despite the differences in the pattern, type of alcohol consumption and mode of suicide among the Beginners and Established categories of Commercial sex workers, the Cognitive Behaviour Therapy with karma yoga principles was effective in maintaining abstinence and lowering depression suggested by no further suicide attempts among both the groups.

LIMITATIONS

The sample was mainly from the urban areas and those who visited the Outpatient unit of the psychiatry department.

Information revealed during the interview was taken on face value there was no other method of cross verification.

DISCLAIMER

There was no funding received for this study from any agency.

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An Investigation of the Relationship between Personality Dimensions and General Health of High School Female Students in Falavarjan City

Moradi Qahderijani¹, Mahboubeh, Karami², Fatemeh, Norouzi, Mohsen³

ABSTRACT

Application of psychological principles for promoting the quality of education is a scientific method. High quality and proper education is not possible without considering individual differences and understanding individuals' states and traits, whether students or teachers. This study has been conducted to examine the relationship between personality dimensions and mental health of high school students. The statistical population of the study consisted of all high school students in Falavarjan city from which a sample of 100 individuals were selected. They were then studied through (NEO) Personality Inventory and the General Health Questionnaire (GHQ). The findings of the study have been analyzed and they were reported as descriptive statistics and correlational study by SPSS software. The results showed that there is a significant relationship between personality dimensions and general health of high school female students in Falavarjan city.

Keywords: *Personality Dimensions, Personality Trait, General Health, Mental Health, Student*

OBJECTIVES

Using the psychological principles for improving the quality of education is a scientific method. High quality and proper education is not possible without considering individual differences and understanding individuals' states and traits, whether students or teachers. The concepts of personality and mental health are among the words most commonly used in psychology and thus, studying the relationship between them can help to a better understanding of individual differences [1].

An efficient educational system should provide the necessary conditions for talents to flourish with respect to students' differences [2].

Individual differences among humans have long been a topic of interest to psychologists. These studies started from examining the physical appearance (body measurement such as height, weight, etc.) and they were then extended to attributing personality traits to physical

¹ M.Sc. in Clinical Psychology, University of Payame Noor, Isfahan, Qahderijan, Iran

² B.Sc. in General Psychology, University of Payame Noor, Isfahan, Qahderijan, Iran

³ B.Sc. in Health Care Management, Isfahan University of Medical Sciences and Health Services (IUMS), Iran

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characteristics (the physical appearance). Then, the studies shifted to senses, and from senses to perception, from perception to cognition, and from cognition to cognitive components and processes (attention, perception, processing, memory, etc.) [3].

One of the most important factors affecting students' academic achievement is their psychological and personality traits. Every individual is equipped with tools such as psychological structures and personality characteristics in order to enter the society and thus to deal with different situations and different people (in terms of culture, social class, etc.) [4]. These psychological tools can help him to deal with different aspects of his life. These psychological structures are not only affected by factors such as family, society, peers, etc., but they also influence these factors reciprocally [5]. These personality characteristics are indeed assumed as mood stimuli for achieving the goals, i.e. these characteristics prompt humans to perform different behaviors in certain situations [6].

THEORETICAL FOUNDATIONS OF THE RESEARCH:

Personality dimensions: They are multiple personality traits or characteristics of individuals, i.e. a series of informal types, each of which represent a set of different characteristics. Psychologists have proposed numerous methods for classifying the personalities into various types. For example, the Swiss psychologist Carl Jung believed that people are either introvert or extrovert. Extroverted people are sociable, pushy and outward-oriented. But introverted people are shy and self-contained. In general, these classifications are inadequate and cannot show personality differences. That's why categorizing people based on a list of characteristics provides more information when compared to classifying them into two or three personality types [7]. In this study, individuals' personality dimensions have been determined through the scores they obtained in Big Five Personality Test. These scores were measured by the NEO Personality Inventory.

General health: According to The World Health Organization definition, health is the physical, mental, and social soundness and vigor and not only being free from illness, but also productivity (efficiency). The functional, comprehensible, and appreciable part of this definition is not being sick. As defined by WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease [8]. In this study, individuals' general health has been determined through the scores they obtained in the general health test by a questionnaire.

LITERATURE REVIEW:

Hayes and Joseph [9] have shown that high scores on each of the mental health tools are associated with the personality dimensions. McCrea and Costa [10] have shown that personality dimensions are associated with happiness and mental health. In other researches, they have also shown that individuals with high scores on personality dimensions have better mental health than those with low scores on these dimensions. Costa and McCrae [11] showed that happiness is correlated with high level of extraversion and low level of neuroticism. Chan and Joseph [12] have also confirmed this relationship in their study. Dastourani [13] investigated the personality characteristics and mental health of employees and indicated that conscientiousness and mental

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health are positively correlated with employees' job satisfaction. Based on the results of the study by Ahadi [14] who examined the relationship between personality characteristics and mental health, there is a significant relationship between personality factor of dutifulness and mental health. It was also indicated that dutifulness is significantly contributed to the prediction and explanation of Mental Health. In other words, the increase in dutifulness is associated with more mental health. The research by Bakhshayesh [15] who examines the relationship between the general health and the personality types, and employees' job satisfaction in the health center of Yazd city, showed that general health, neuroticism, extraversion and agreeableness are correlated. Moreover, their subscales are also related.

METHOD

This is an applied study which used a descriptive research technique. Considering that personality characteristics and mental health are, respectively, the predictive variable and criterion variable in this study, the descriptive correlational method was used for the data collection.

Statistic population: Statistic population of the study consisted of all high school female students (Humanities, Experimental sciences, mathematics & physics, and vocational and technical training) who have been studying in high schools of Falavarjan city during the 2013-14 academic year.

Samples selection and sampling method: Tajadod high school of Largan was selected randomly from among the mentioned population which included 100 high school students.

Study Tools: Tools used in this study included the NEO Personality Inventory test and general health test.

NEO Personality Inventory: NEO-FFI personality questionnaire is the 60-item truncated version of NEO PI-R which has been designed for quick and brief assessment of the five major factors (neuroticism, extraversion, openness, agreeableness and conscientiousness). It is comprised of five sets of 12-item for each indicator in which grading is based on the five-point Likert scale from strongly disagree to strongly agree. This questionnaire is applicable individually or in group and the testing environment should be comfortable, quiet and light.

Reliability and validity: In regard to the validity of the test, the results of several studies suggest that the NEO FF- sub-scales have a good internal consistency. Retest reliability coefficients of scales varied from 30/0 to 65/0 for time spans of three months [16].

GHQ-28 Mental Health Questionnaire: This questionnaire was developed to identify non-psychotic mental disorders and it is widely used for the diagnosis of mild mental disorders and screening for non-psychotic psychiatric disorders in health centers and other communities in

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various situations. The response of subjects to each question will be determined in a range of four degrees. The 28-item was developed using factor analysis on the full-length version and consists of 4 scales, each scale with 7 questions. Scales include: 1) physical symptoms, 2) anxiety and sleep disorders, 3) social dysfunction 4) severe depression.

Questionnaire reliability: Reliability coefficient of GHQ-28 questionnaire is 0.781 in the statistics population. This is a high reliability and proves that this test is valid.

Data Collection Methods: 100 copies of the questionnaire were presented after preparation and then they were brought to a high school and given to the students. Once the questionnaires were completed, the data were scored and analyzed. This phase of the study lasted one week.

Data analysis: The analysis methods included frequency, mean, standard deviation, minimum and maximum, Pearson correlation coefficient, and correlation diagrams. Data analysis was performed using SPSS V17 software.

RESULTS

The present study investigated students' mental health and types of personality dimensions. In this study, 100 high school students were evaluated using simple random selection. The findings which were analyzed using statistical methods are as follows based on the research questions:

Based on the results of the descriptive investigation on the 5 personality factors (Table 1), it can be observed that the neuroticism dimension has the highest mean, i.e. 24.5, and the conscientiousness dimension has the lowest mean, i.e. 21.5 in the case under study.

Table 1: Descriptive data of personality variables, along with their subscales on high school students in Falavarjan city in 2014

	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness	Personality
N Valid	100	100	100	100	100	100
Missing	0	0	0	0	0	0
Mean	24.5000	22.8400	23.0200	22.1300	21.5000	114.3300
Median	25.0000	23.5000	23.0000	23.0000	22.5000	115.0000
Mode	22.00	24.00	22.00	25.00	23.00	113.00
Std. Deviation	4.66991	4.66822	3.29057	5.05256	6.85713	14.11787
Variance	21.808	21.792	10.828	25.528	47.020	199.314
Minimum	11.00	9.00	12.00	7.00	0.00	57.00
Maximum	34.00	34.00	31.00	31.00	34.00	142.00

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The results in table 2 show that the general health score is 36.49. With regard to the fact that the individual's general health score ranges from 0 to 84, in such a way that a lower score indicates a better general health, thus, subjects' mean in this study represents the minimum general health, i.e. individuals have psychological problems.

Table 2: Descriptive data of mental health, along with its subscales on high school students in Falavarjan city in 2014

		Physical function	Anxiety and sleep disorder	Social function	Depression	General health
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		9.3100	9.1000	8.0300	10.3400	36.4900
Median		9.0000	9.0000	8.0000	11.0000	36.0000
Mode		(a) 8.00	8.00	9.00	13.00	39.00
Std. Deviation		4.49398	4.08125	3.34076	5.35643	14.19667
Variance		20.196	16.657	11.161	28.691	201.545
Minimum		1.00	2.00	2.00	0.00	8.00
Maximum		18.00	18.00	15.00	21.00	66.00

According to table 3 and diagram 1, the correlation coefficient for the neuroticism dimension is - 0.025. Thus, it has a significant negative correlation with mental health. In other words, the more neurotic a person is the better mental health he has. But this correlation is weak.

Table 3: Results of the Pearson correlation coefficient on the relationship between neuroticism and general health

		Neuroticism	General health
Neuroticism	Pearson Correlation	1	(-) 0.025
	Sig. (2-tailed)		0.805
	N	100	100
General health	Pearson Correlation	(-) 0.025	1
	Sig. (2-tailed)	0.805	
	N	100	100

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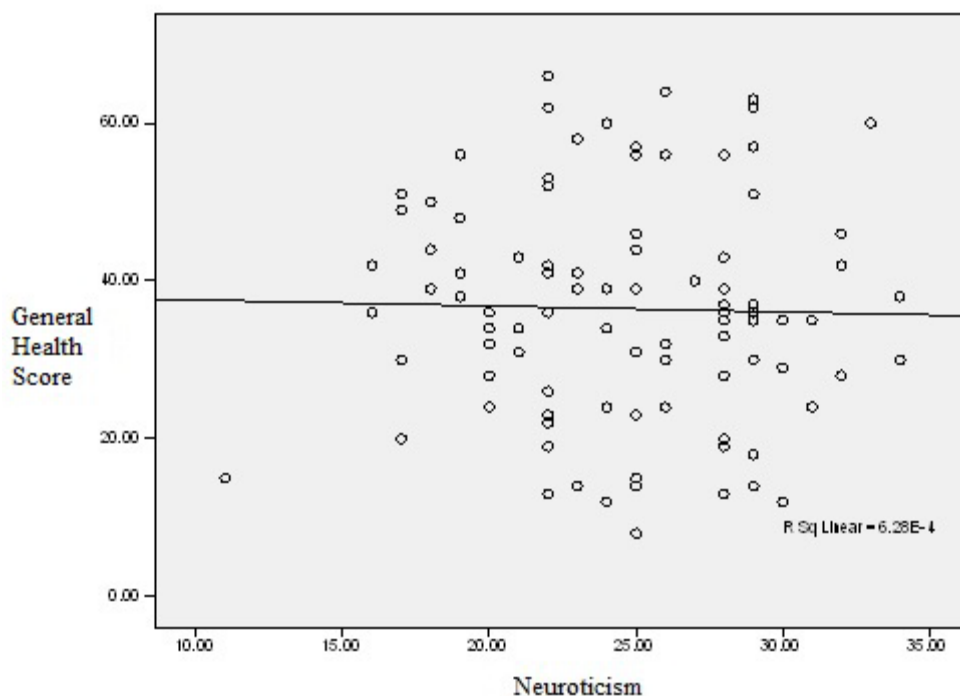


Diagram 1: The scatter plot displaying the negative correlation between two neuroticism and general health

The results in table 4 and diagram 2 indicate that the correlation coefficient for extraversion is 0.384. And therefore, it has a significant positive correlation with mental health. In other words, as level of extraversion increases, mental health decreases. This is considered a moderate correlation.

Table 4: Results of the Pearson correlation coefficient for the relationship between extraversion and general health

		Extraversion	General health
Extraversion	Pearson Correlation	1	0.384(**)
	Sig. (2-tailed)		0.000
	N	100	100
General health	Pearson Correlation	0.384(**)	1
	Sig. (2-tailed)	0.000	
	N	100	100

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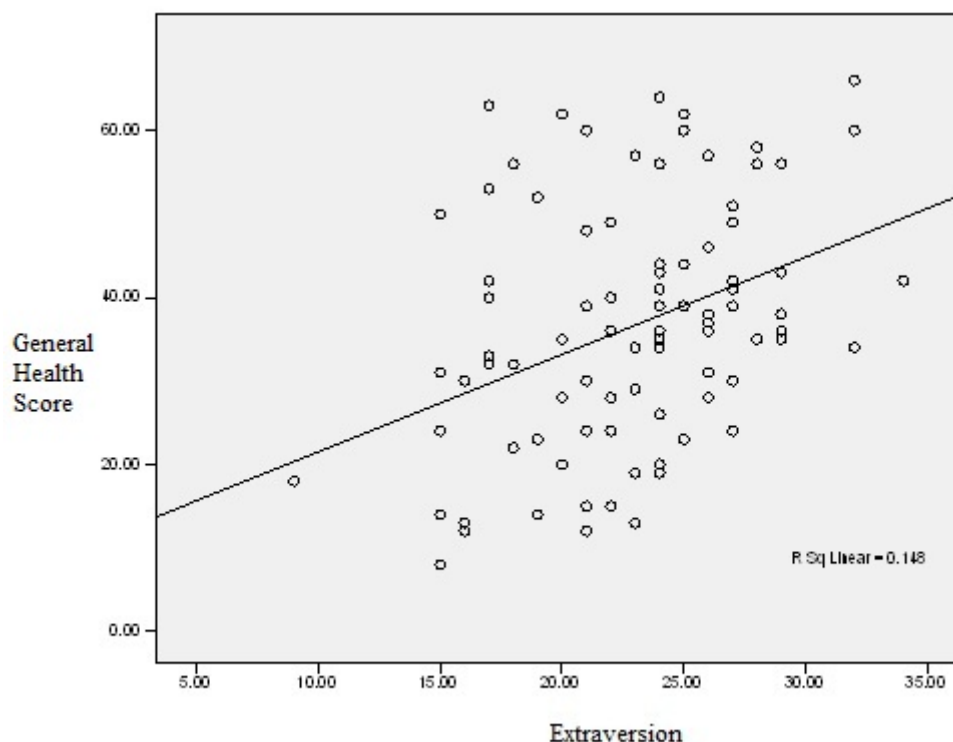


Diagram 2: Scatter plot displaying the positive correlation between extraversion and general health

The findings of the study also showed that the openness dimension has a correlation coefficient of -0.051. And thus, it has a significant negative correlation with mental health. In other words, the more open a person is, the better is his mental health. This is a weak correlation (Table 5 and diagram 3).

Table 5: Results of the Pearson correlation coefficient on the relationship between openness and mental health.

		Openness	General health
Openness	Pearson Correlation	1	(-) 0.051
	Sig. (2-tailed)		0.613
	N	100	100
General health	Pearson Correlation	(-) 0.051	1
	Sig. (2-tailed)	0.613	
	N	100	100

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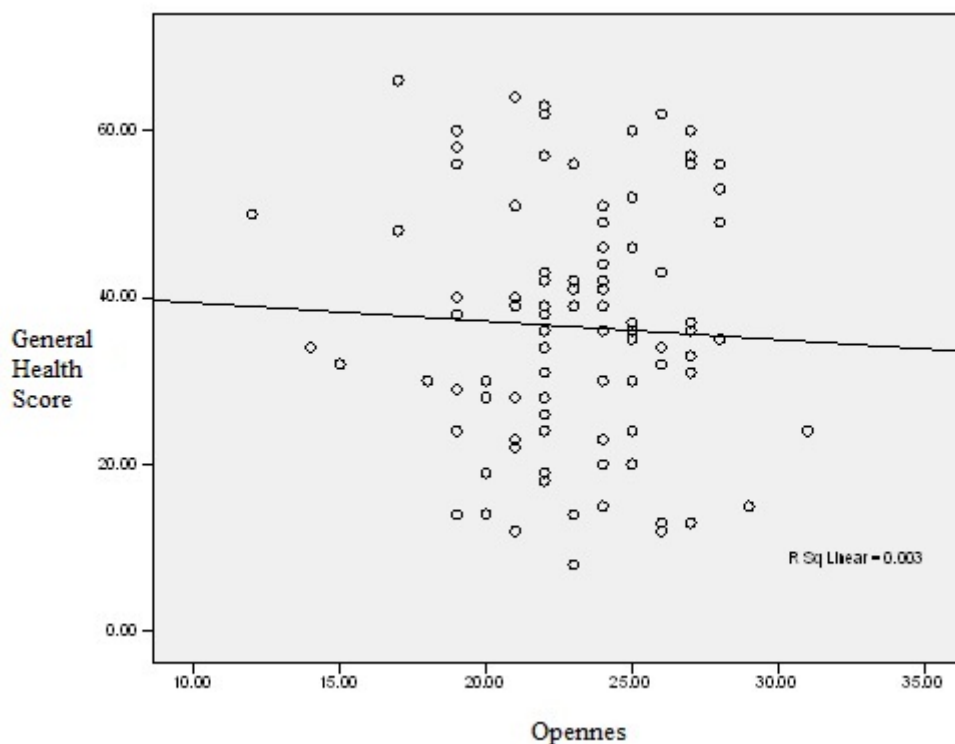


Diagram 3. Scatter plot displaying the negative correlation between openness and general health.

The results also showed that agreeableness dimension has a correlation coefficient of 0.194. And therefore, it has a significant positive correlation with mental health. In other words, the more agreeable a person is, his mental health gets worse. And this correlation is a weak one (Table 6 and Diagram 4).

Table 6: Results of the Pearson correlation coefficient on the relationship between agreeableness and general health.

		Agreeableness	General health
Agreeableness	Pearson	1	0.194
	Correlation		
	Sig. (2-tailed)		
	N		
General health	Pearson	0.194	1
	Correlation		
	Sig. (2-tailed)		
	N		

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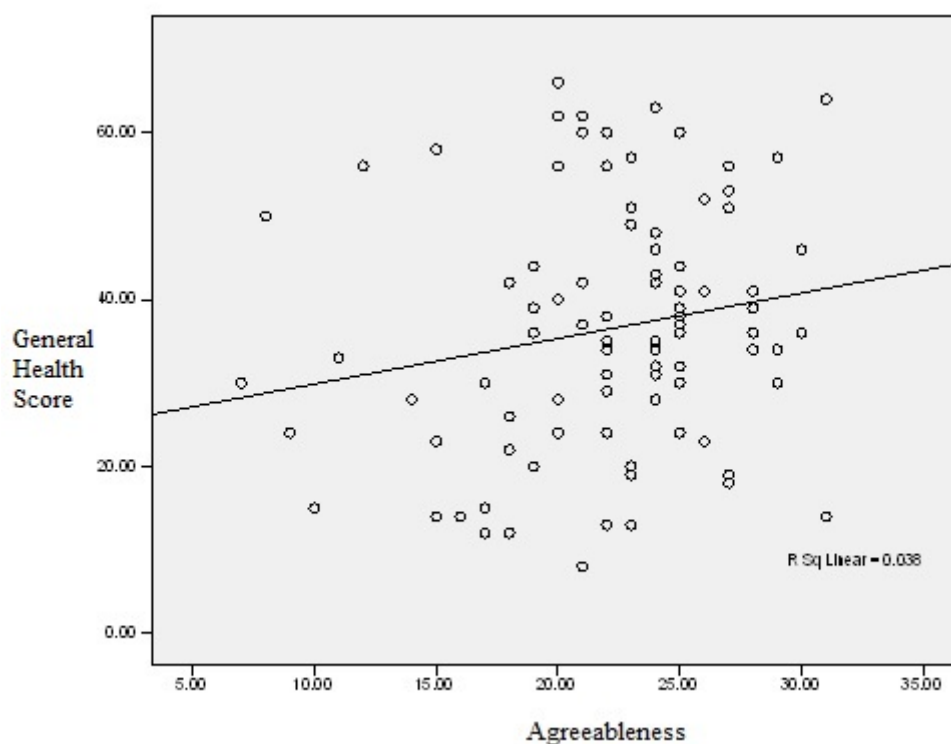


Diagram 4: Scatter plot displaying the positive correlation between agreeableness and general health

Based on the results in table 7 and diagram 5, conscientiousness dimension, with a correlation coefficient of 0.427, has a significant positive correlation with mental health. In other words, as conscientiousness increases, mental health gets worse. Meanwhile, this is a moderate correlation.

Table 7: Results of the Pearson correlation coefficient on the relationship between conscientiousness and general health

		Conscientiousness	General health
Conscientiousness	Pearson Correlation	1	0.427(**)
	Sig. (2-tailed)		0.000
	N	100	100
General health	Pearson Correlation	0.427(**)	1
	Sig. (2-tailed)	0.000	
	N	100	100

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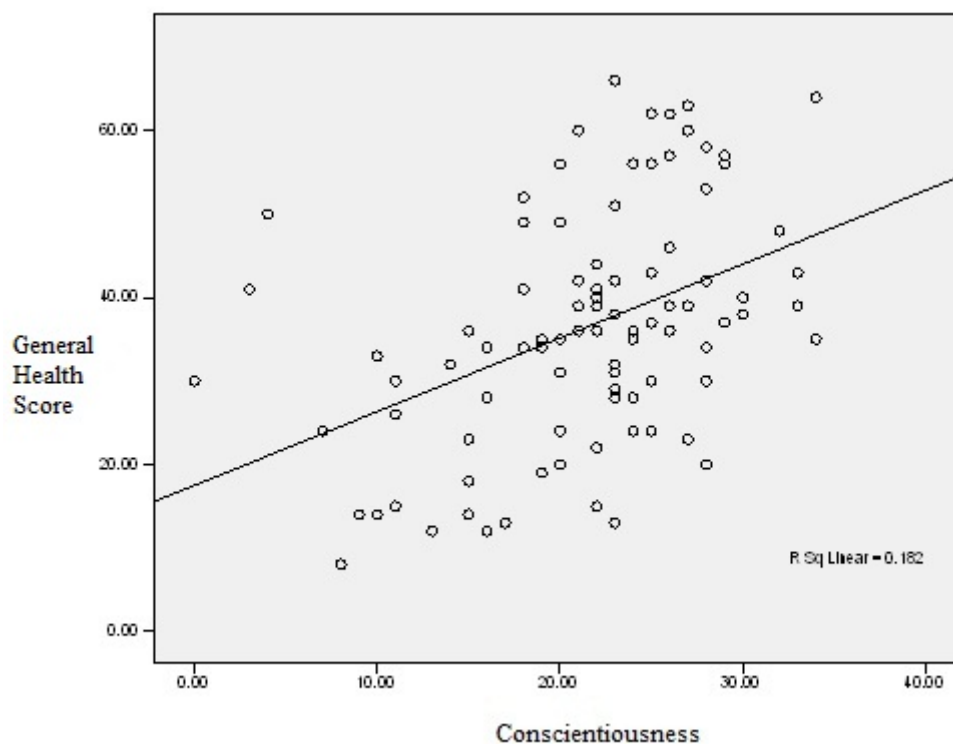


Diagram 5: Scatter plot displaying the positive correlation between conscientiousness and general health

The result of the study also showed that personality factor with a correlation coefficient of 0.386 has a significant positive correlation with mental health. In other words, the higher score a person obtains on the personality test, the worse mental health he has. This correlation is a moderate one (Table 8 and Diagram 6).

Table 8: Results of the Pearson correlation coefficient on the relationship between personality and mental health

		Personality	General health
Personality	Pearson Correlation	1	0.386(**)
	Sig. (2-tailed)		0.000
	N	100	100
General health	Pearson Correlation	0.386(**)	1
	Sig. (2-tailed)	0.000	
	N	100	100

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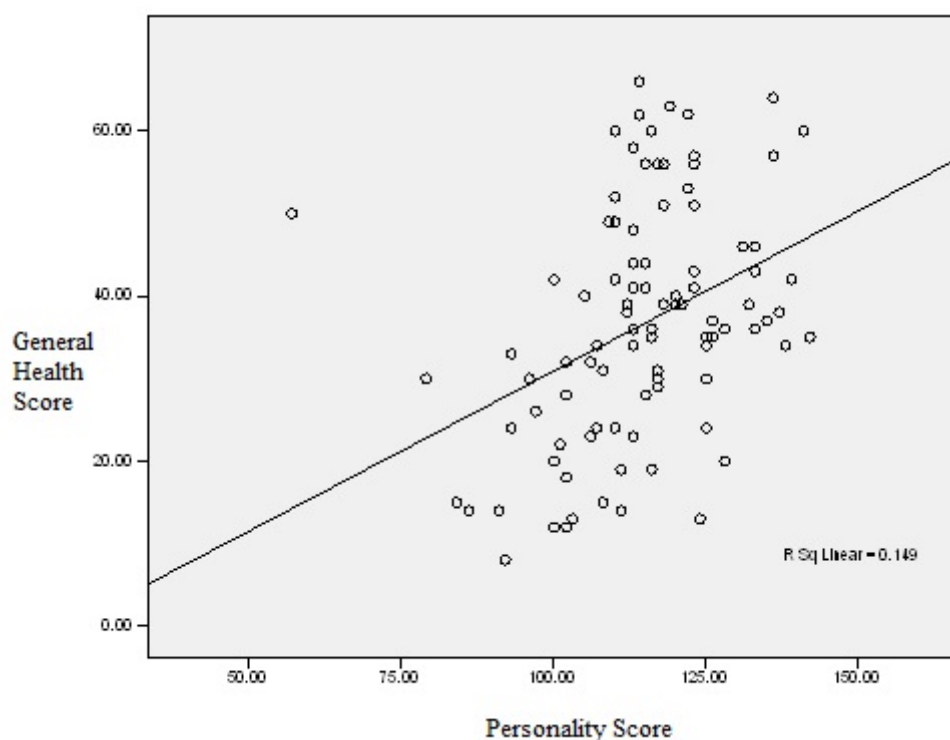


Diagram 6: Scatter plot displaying the positive correlation between personality and general health.

DISCUSSION

According to the findings of the research, there is a significant negative correlation between the general health and neuroticism. Thus, the first hypothesis of the study, i.e. there is a significant correlation between the general health and neuroticism is confirmed.

The second hypothesis was also confirmed. The reason is that based on the findings of the study, there is a significant positive correlation between extraversion and general health.

The findings of the study also confirm that the "there is a significant relationship between openness and general health." This is due to the fact that a significant negative correlation was observed between openness and general health.

DeNeve and Cooper [17], conducted a research on the relationship between personality and openness and indicated that people with high levels of openness show a friendly, kind and caring behavior even in stressful situations. These findings are consistent with the results of the study by McCrae and Costa [10], on the five factors of personality and mental health. In their study, they showed that people with high levels of openness show greater emotional health than those with low levels of this trait.

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According to the findings of the present study, it is confirmed that there is a significant relationship between agreeableness and general health due to the significant positive correlation between them.

In this study, although there was no significant relationship between openness to experience and mental health, as McCrae and Costa [18], have expressed, openness to experience is the most complex factor among the five major personality factors and thus, it is hard to understand and recognize it [19]. Thus, more studies should be conducted for the accurate understanding and cognition of the dynamics and complexities of this factor.

Also according to the findings, there is a significant positive relationship between conscientiousness and general health. Thus, the fifth hypothesis, i.e. there is a significant relationship between the conscientiousness and general health, is also confirmed.

Every sound human being of mental health accepts responsibility of his life and behavior; behaves normally and in responsible ways; faces the realities realistically; and decides based on logic and emotion. Thus, according to the five-factor model of personality [16], it can be inferred that since conscientious people have some sort of perseverance, self-discipline, orderliness, and mostly they are accurate, reliable and reasonable, conscientiousness is an important factor to predict life satisfaction, and life satisfaction emphasizes on the cognitive aspects and value of mental health.

CONCLUSION

Mental health experts believe that mental health not only requires being free from a mental illness, but also it is the ability to react to a variety of life experiences in an open and significant way. Mental health is a combination of positive emotions and positive performance. It is associated with the presence of prosperity and absence of weakness and lassitude. One of the concepts which is observed in the studies related to the students is their mental health problems.

Recent studies show that more mental health problems are observed in students as countries are getting industrialized. Stresses related to their age, biological maturity problems, adaptability to new ways of life and education, behaviors with peers, participation in groups and staying away from family are among the factors which will increase students' stress. Spiritual concepts and existential problems, uncertainty about values, lack of connections and longing for family are some of stressful factors in students which reduce their health level. One of the most important consequences of students' health level reduction is the emergence of various problems such as educational failure. Therefore, studying the factors affecting the health of students and how they cope with the stresses and pressures of student life is necessary for improving their educational quality and enhancing the scientific level of school.

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Based on the results of this study and other similar studies, students' personality characteristics are related to their health. The relationship between personality characteristics is applicable in a wide range of areas including the prediction of behavioral problems. A significant point that should be noted is that students' personality, whether extroverted or neurotic, is related to their mental health. At first glance, it is the personality of an individual which must be considered. Any type of personality has its own sets of performances and responses. Considering this point, we can communicate with people properly and easily. In a study by Steel, Shultz, & Schmidt in 2008 [20], through reviewing previously conducted researches on the relationship between personality characteristics and welfare, it has been observed that personality traits explain 39 to 63 percent of the variance of welfare.

Totally, the results of the present research support this view that personality characteristics can provide preparation and effective potential context for individuals' mental health.

Given the enormous difficulties and pressures with which students are facing, the need for planning for the purpose of solving their future problems, promoting their mental health, and consequently improving the scientific level of the country is felt more than ever. According to the findings of the present study, among the most important and effective ways of improving students' health are relieving the pressure on them, increasing their ability to deal with problems, finding meaning in life, and strengthening the foundations of mental health. Thereupon, conducting further researches, planning, and implementation of interventions in this area seems essential. It is also recommended that studies be undertaken to assess personality dimensions and male students' mental health. Also, it is suggested that other personality variables related to the general health be studied in future studies.

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The Psychology of Legal Pedagogy: Introducing Interface between Law and Psychology

Dr K Parameswaran¹

ABSTRACT

Law and psychology have a deep connection. Its connections come from various common elements between them. Three common elements that stand out among others bear a complementary impact between law and psychology. They are; 'adherence' to law and legal system by society, 'understanding' the needs of society by State Legislature, and finally pedagogical methods in legal education whereby legal 'knowledge' is transferred to law-students in society. All three common elements namely 'adherence, understanding and knowledge' have psychological dimensions affecting divergent roles and functions of law. However, the important role played by legal pedagogy among these three elements is crucial as legal 'knowledge' shapes the other two elements namely 'adherence and understanding'. Legal knowledge when transferred through effective legal pedagogy enhances 'adherence' to law and legal system by society and 'understanding' for the State of its legislative duties. Through this, nobler goals of legal education as well as Constitutional functions of State and its legislature are also fulfilled. This article explores the interface between law and psychology by analysing the psychology of legal pedagogy, its effective steps to lead law, life and society towards peace, progress, prosperity and stability through law-teaching.

Keywords: Education, Law, Legal knowledge, Pedagogy, Psychology, Teaching

The Oxford dictionary explains pedagogy as '*the method and practice of teaching, especially as an academic subject or theoretical concept*' (Oxford Advanced Learner's Dictionary, 2015), whereas; the Merriam-Webster dictionary defines pedagogy as *the art, science, or profession of teaching* (Merriam Webster Dictionary, 2015). In general pedagogy refers to a discipline where all kinds of theories and practices of education are dealt with. Pedagogy has always been a subject and discipline of study since ancient times. Greek, Indian, English and many older civilizations and cultures have emphasised the need and importance of pedagogy as a systematic measure to the development of human nature and collective growth of the society. Noted work on pedagogy by Gabriel Compayre and William Harold Payne, in their *History of Pedagogy* (Compayre, 1989) admit that it would be highly difficult to narrate the complete history of education that human life has seen through, as education as a system of knowledge-development is not just derived from one recognised source like academic institutions but many other sources

¹ Professor of Law, Symbiosis Law School, Symbiosis International University, Pune

like social, religious, cultural, psychological, political, peer groups, arts and others besides complex details of their chronology and timelines. The importance of pedagogy to learning (Entz, 2006) and teaching (Bhowmik, Banerjee & Banerjee, 2013) is something that cannot be easily described (Manen, 2012). The well-known six elements of Bloom's Taxonomy of learning in action (Bloom-i, 2015) with its three foundational psychological dimensions namely cognitive, affective and psychomotor aspects give enormous scope to the dimension of psychology in pedagogy (Forehand, 2011). Bloom's Taxonomy has opened up host of psychological dimensions in learning, teaching and education (Bloom, 1956) which otherwise largely remained within the strict confines of the discipline of psychology. Pedagogy has now become an important topic of brain-research and, medical science is making significant headway in this field (Boettcher, 2007).

The art and science of pedagogy (Cornwell, 2011), its skills (Mundo, 2009), types and kinds according to learners (Marzano, 2007), inter-disciplinary methods (Mathison & Freeman, 2004), modern trends (Marzano, 2011), effective team and collaborative pedagogy (Little & Hoel, 2011), new methods (Harrison, Back & Tatar, 2006), global standards (West, 2012), innovative trends (Lehto, Kairisto-Mertanen & Penttila, 2011), UNESCO's contributions (UNESCO, 2015) and many other aspects (Sahlberg, 2004) collectively enhance effective learning and teaching skills (State of Victoria, 2004). All these aforementioned aspects point to only one thing. The hidden and invisible psychological dimensions to pedagogy and their phenomenal and immeasurable ranges have now made pedagogy and psychology as something one and synonymous. Pedagogy is a catalyst through which knowledge is passed, experience is shared and wisdom is awakened between the teacher and student or between two learners at a deeper level. A good pedagogy decides the personality of a teacher and determines the depth of his or her relationship with students and learners. An effective pedagogy can be a significant parameter to measure the commitment of its service-nature of teaching and knowledge-sharing to the society.

In this article the author analyses the various ways in which legal pedagogy can be enhanced by understanding and applying the knowledge of psychology in law-teaching. Knowledge of some of the important problems of the modern world like sustainable development can be easily imparted if one applies a right pedagogical method (Steinemann, 2003) or the problems of human rights and gender (Rodriguez, 2015) where human behaviour can be transformed to understand and attend to the most pressing problems of the society (Redman, 2013). To 'understand' and 'adhere' to the 'knowledge' hidden in the jurisprudence of sustainable development or human rights of gender-justice needs an effective leverage to awaken the social issues that moribund and cripple our daily life that finally come to law and legal systems for their rescue. In this way many social and political problems that human societies across the world face at this crucial juncture of globalising world can be positively resolved by developing a correct and effective method of law-teaching where law and legal knowledge for the betterment of the society can be imparted by exploring interface between law, legal pedagogy and psychology. In

this article the psychology behind legal pedagogy is surveyed to show how a good, right and effective legal pedagogy is crucial not only for educative purposes of the discipline of law but also for an ultimate fulfilment of goals and functions of law and legal systems in the society. The humanity which is at cross-roads at this juncture of globalising world with increasing problems of law and order has its solutions from an effective law-teaching, argues the author. The true tenets of justice, equality, liberty and fraternity when effectively taught and inspired can lead society to its state of excellence as envisioned by many thinkers like Plato, Mahatma Gandhi or Sri Aurobindo.

PSYCHOLOGY OF LEGAL PEDAGOGY

When law deals with the present, the past is hidden inside it. Law guides the future of life and society circumstanced by present and, influenced by past. Law becomes the central focus of life where past, present and future are interwoven. Law then becomes the solution for all problems of life that we see in society, State and world. Parliamentarians and legislators are busy making the laws for the society. Public servants of the executive commit to, and supervise the performance of laws in the society. Judiciary interprets laws to discriminate the bad from the good. In this scenario, legal education and its pedagogy become crucial as they teach what law is, how it is made, how it is to be interpreted, what kinds of different laws and statutes, public and private laws, domestic and international laws exist and how these laws have various interdisciplinary connections with numerous other disciplines of knowledge, that in turn impact the overall complexity of the issues of human life and their legal solutions. The importance of legal education stands unique among all disciplines of education. As law pervades all aspects of life, so also legal education that brings all disciplines of knowledge together. Legal education has the key to make our social life successful, our planetary existence meaningful. It can contribute to the role of law and rule of order municipally, internationally and globally. So much has been said on legal education and every day we find a call for quality legal education, what it should provide and how it can be. The transformation of legal education by Dr Madhava Menon (Menon, 2012), the social relevance of legal education by Upendra Baxi (Baxi, 1976), the future of legal education (Sommerlad, Harris-Short, Vaughan & Young, 2015), the internationalization of legal education (Klabbers & Seller, 2008), the globalization and legal education (Flood, 2015), new ideas on legal education (Chemerinsky, 2008), participatory legal pedagogy (Kim, 2008), the shift of legal education in the changing times of our modern world (International Legal Center, 1975) and many more of such aspects give us interesting clues on the importance of legal education and its pedagogy. All of them invariably point to an underlying foundation where, not only legal education but also, pedagogy of legal education is equally emphasised. The law-teaching that emphasises the understanding of a legal problem and legal solving (Gantt, 2012), methods and designs (Pasley & Yoder, 2015), divergent perspectives (Margolis & Murrey, 2014), Boulder Statements (Texas Law, 2009), Carnegie Report on legal education and its implications (Ferguson, 2015), various models of best practices on legal education (Stuckey, 2007) and many more point to show that the strong foundation of legal education comes from the interface between law, pedagogy and psychology. The legal pedagogy and research has become

a unique course now with a stand-alone value that many discuss as an independent paper of study (The Indian Law Institute, 2015).

LIFE, LAW AND SOCIETY AS ONE PSYCHOLOGICAL CONTINUUM

This life is beautiful and, our world is full of opportunities. We learn many things from everyday living and life (Jarvis, 2012). But we go through lots of obstacles in our daily life and complicate them further. Sometimes one wonders whether the great machine that moves life of everyone of us has any solution to all the problems of life. Our doubts and despondencies assail us giving us only despair and depression. We can simplify life and, move from state of daily crisis to calm as well as enjoyment. Chaos and uncertainty can be removed; order and stability can be restored. What is there behind order and chaos (Crutchfield, 2002) and how can we understand the complex patterns that are behind them have become serious contemporary study now based on the national and international problems from the past to present (Watson, 2003).

Our social problems show us one thing. It is the lack of adherence to norms in life; social, political, cultural, economic or religious norms. Our individual and collective life, our personal and social norms conflict with each other and create various problems in the society. Human behaviour grows from one stage to another. At times, when it understands norms it adheres to them; at times it despises them and brings problems. The World Justice Report in its Rule of Law Index (Malawi Country Report, 2013), The US Guide To Rule of Law Country Analysis: The Rule Of Law Strategic Framework (USAID, 2010), The United Nations Rule of Law Indicators (UN-i, 2011) or the Good Governance Reports by the United Nations (UN, 2012), The Office of The United Nations High Commissioner for Human Rights (UN, 2007), Organisation for Economic Cooperation and Development (Akhmouch, 2012) and many others pithily remark the lack of adherence to norms which are crystallised in law that society themselves have made and have failed in practice. When political process crystallises these norms, society accepts them as law. When law is good it helps all of us. When it is bad, it disturbs our peace and delays progress. Creating a necessary legal framework is a corollary of economic development says Richard Posner (Posner, 1998). Law must keep pace with the changing requirements of the society. And, society too must consciously participate in the laws it wants and practise them without fail. This mutual understanding between law and life can make our society lawful and life-positive. Through this we can bridge life which is essentially beautiful to our daily-life making it realistically beautiful. This interplay between law and social transformation (Mohan, 2009), law and development (Davis & Trebilcock, 1999), development based on rule of law and adherence (Domingo, 2009) and many more gives us to have safe presumption and positive conclusion as to the importance of legal education and effective law-teaching in the society.

Significance of Law-Teaching in Society:

But then, how do we make people understand the importance of order, regulation and systematised life? How do we bring adherence to laws and create law-habits that help us grow in peace, progress and prosperity in society? Among all kinds of education, legal education has a

great role in making society understand this. As law is ubiquitous, it regulates everything in our life, from birth to death, all animate and inanimate things, and everything that human mind can reach. Law-teaching brings this significance of law in our daily life, national identity and collective global development. Effective law-teaching in legal education has the key for this meaningful understanding and constructive action. One can understand how legal education is at the centre of the wheel with all the spokes of education of other disciplines revolve around finally to get the right balance between different disciplines of education as well as harmony of interplay between their knowledge in terms of legal rights and obligations. The internationalization of legal education (Caenegem & Hiscoc, 2014), legal education in the age of cognitive science and advanced classroom technology (Merritt, 2008), social dimensions of legal education (Priest, 1983), ethics in medicine and law, the challenges from globalization, technology and changes in government regulation (Flood, 2011) or the challenges to *legal education in the context of globalization* and the development of standards (Krishnasamy, 2014) and many more makes research for effective legal pedagogy significant.

Effective Law-Teaching:

What constitutes effective legal pedagogy? There is plethora of materials on this that are based on country's needs, degree requirements or socio-political cultural setting. The technique for teaching law (Hess & Friedland, 1999), effectivity of teaching law (Burridge, Hinett, Paliwala & Varnava, 2002), pure class room teaching (RHPF, 2012), strategies involved in law-teaching (Katz & O'Neill, 2009), Report of the Law Commission of India on legal education in general and Bill and Melinda Gates's reformative trends through effective teaching (Bills & Melinda Gates Foundation, 2010) show variety of issues that are there to be understood behind effective law-teaching. Law-teaching and, for that matter teaching of all subjects, have two indispensable elements. One, the core contents which are taught, and two, the method and the manner by which they are delivered. Core contents form part of the curriculum that are presented through course outline and reference materials given to the students. The method and manner are the style of teaching pedagogy where technique and procedures are involved; such as pure lecture, participation with students in the class-room or through group discussions, resource-materials based on requirements of the students and their interest to delve further, technological aids like power-point presentations, video-conferencing, and use of gadgets and so on. It must be borne in mind that these methods and manners are largely individualistic in the sense they remain personal and private to the teachers given the varieties they have; such as teacher's choice and aptitude, student's interest and inclination, nature of the law-subjects, time schedule and stipulations and, requirements that university through their academic administration have and are in need of. The core contents of curriculum which are taught, delivered and shared with students can be made effective through certain teaching methods or habits. These effective teaching methods are basically founded on the psychology behind legal pedagogy in which social, cultural, national, career, higher research and rule of law requirements are integrated. Thus, effective legal pedagogy brings an 'auspicious phase' between the teacher and student. This 'auspicious phase' is full of moments where knowledge is awakened. Students begin to discover

knowledge, discern details, distinguish things; see theories and practices, understand social needs, national requirements, global problems, comparisons and many more. In this phase the impacts a teacher brings through his effective teaching is unexplainable after a point of time as students who discover this knowledge know, enjoy and carry them for their whole life. This gateway and awakening of knowledge is something deep and psychological which only a teacher can experience after his or her effective teaching. The noble role of a teacher is successful when the psychology of legal pedagogy is understood. Both the teachers and students feel their sense of fulfillment. Legal education and academics, legal learning and knowledge, law, life and society serve the purpose in this line of one and single psychological continuum.

An effective law-teaching or the psychology behind legal pedagogy is the relationship between the legal knowledge and adherence to law and legal system which get transferred from this awakening phase in the society through students first, graduates next and finally as responsible citizens of the country and world. Here, one can understand what role legal education can play and, law-teaching has in the society. When a country or world is progressing in development-agenda, law and order become indispensable as competition from all sectors and sections of the society results in conflict trying to meet everyone's expectations. Justice that is substantive, equality that is meaningful, liberty that transcends, and fraternity that brings joy for everyone without discrimination becomes the tool to handle social and economic relationships. At this juncture, society and legal educators have a great responsibility in carefully kneading and treading a path to grow in peace that augments progress for everyone in the society, prosperity that leads to maximum justice and happiness to all. It is only legal education through effective law-teaching that can make these ideals a reality. Thus, effective law-teaching based on sound psychology of legal pedagogy becomes the channel and our crucial gateway for our life full of stability and rule of law free from disorders and chaos.

STEPS FOR EFFECTIVE LAW-TEACHING

1. Experience and Peak-essence of Subject

A teacher must understand the spirit of the subject that comes from the peak-essence or climax-experience of the subject knowledge. It is well-known in the realm of transpersonal psychology which says an experience takes place at the height of the knowledge which are beyond the strict confines of knowledge and understanding of the subject. This peak-essence, or climax-experience or spirit of the subject can be anything which conveys the integral sense of the overall knowledge of subject, purpose and utility of the subject and its knowledge. For eg; Article 2 of the United Nations Charter can be classified as the spirit, peak-essence or experience of 'public international law' as a subject. Article 2 reads as following (UN, 2015).

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles.

1. The Organization is based on the principle of the sovereign equality of all its Members.

2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.
3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.
4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.
5. All Members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.
6. The Organization shall ensure that states which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security.
7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

This spirit must be caught and taught to the students. These principles must remain alive and fresh in teaching which in turn creates faith on the subject among students. It is said, in transpersonal psychology, one of its elements is the faith or belief that comes from experience. When such peak, experiences or spirit is shared on the portals of a classroom, they in turn affect positively the cognitive pattern and receptive mind of the students. This creates finally the faith and belief on the subject and its knowledge. This is one of the important gateways to effective law-teaching. The role of United Nations Charter in international law (UN-ii, 2011) comes from the basis of the principles as set in Article 2 of its Charter.

1. Evidentiary Details of Subject

One of the important reasons for psychology to gain acceptance as a discipline of knowledge in the early 19th Century where popular epistemology that relied on scientism, was the approach of case-study and case-method that conducted and recorded in the clinic of psychologists and psychiatrists. This case-study method gave evidentiary value based on recorded details of the subject of a study on either an individual person or collectivity of the society. Noted works of Sigmund Freud, Anna.O, John Money, Little Hans, Harlow, Jean Piaget and others give us extraordinary details of the subject matter by which we see the reality of the subject matter in an objective way when psychology takes its initial form in a subjective realm of inner understanding. Such kind of data in a law subject is more valued when we see law is what has been accepted as law by the society and applied in real situations in the society. Taking data to the classroom teaching gives links and, connects the subject with society which is what law and legal education is concerned with; what, why, how, when and where? List of laws, its provisions

and amendments, facts and circumstances of case-laws, causes, historical time-periods, places and situations show a direct relationship among law, life and society. Through data students get to know the practical impacts of the subject in the society as handled by the parliament or executive or by the judiciary. Data of a subject increases professional skills and abilities to handle and practice the subject as it deals with the real facts which students post the graduation of a law programme would be utilising in their practical application. It can be said that the data of law subjects is one of the foundations to enter successfully to the pious portals of Bar and Bench. In fact, the popularity of evidentiary case-study method developed by CC Langdell of the Harvard Law School as against the pure lecture method was because of its practical approach to learning which helped professional practice substantially both in litigation as well as non-litigation legal work. It was no doubt that Langdell who worked and was fond of law library had in him a conscientious trait that understood the practical data and utility of law through case-laws that earned him everything that Harvard is talked about. With knowledge-explosion through information technology and highway devices, the laborious task of Langdell has been made easy to get preliminary materials from legal data-base of a computer, which then can be taken up for the next stage of intellectual reading and assimilation.

2. Futurism and Policy Perspectives

A law teaching devoid of policy perspectives lacks the sense of contemporary spirit. Policies of government and legislature, requirements of interest-groups and current trends give students a direction on how to take the subject-knowledge forward from present to future. When we saw how life and law have an interconnection in the sense of time-element of past-present and future, policy perspectives are futuristic and help directing law to next stage of growth. Both the Houses of the Parliament of India seek suggestions and recommendations from the citizenry for inputs and insights on draft legislations that are presented as Bill to be passed as an Act. Teaching issues which are currently handled by the legislature in its pre-legislative status brings realism to idealism of law, objectivity to subjectivity of legal system of State polity. In addition to all these, policy perspectives can also bring scope for career-growth, interests in higher education and policy researches to help nation-building and international understanding. The psychology of human nature is such that it can envision ideas and apply will-power to them and effectuate the same. Taking this psychological cue of futurism in legal pedagogy gives law and legal system a state of non-complacency from which legal knowledge can grow without social stagnation and legal stultification.

3. Constitution of the Country

The Constitution Law of India and, for that matter any Constitution of a Nation, is a supreme document that binds everyone who belong to that Nation; thoughts, ideas, feelings and activities. All the law-subjects have a connection with the National Constitution. It can be connected (like in the case of Indian Constitution) with Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy, three organs of State, Schedules, Lists and so on. Constitution is a treasure house of knowledge that can link everyone with themselves, family,

employment, society, nation, flora, fauna, sustainability and our roles as responsible citizen in the country. This in turn links law-subjects and their practical applications in society to achieve National and Constitutional goals. The three-tier stage of domestic, State and National development has its foundational origin in the Constitutional law of a nation.

4. International Laws

There is no law-subject without an application of international law and its jurisdiction in a larger sense. Globalization, trade and commerce, social transformation and culture, United Nations system, international organizations and legal order etc, are ingrained in every law-subject if one knows how to look for it and develop a law-subject to an international stature; no matter they are public or private laws, penal or tax laws, personal or commercial laws. Signposts of international law with treaties and obligations can be found in every nook and corner of the world. The Universal Declaration of Human Rights, the Charter of the United Nations Organization, Millennium Development Goals, WTO, WIPO, The Hague Conventions and others have always something to offer, guide and direct whatever be the law subject and nature of treatment it needs. International applications and jurisdictions are as relevant as any other laws and gone are the days when nations could afford to shelter under the supremacy of the sovereign will. International law has become synonymous with any general laws. Teaching these international dimensions in a law-subject where national and international collaborations take place, can give reality to the ideal of human unity which nation-states and civilizations have been aspiring for irrespective of their entrenching will of the sovereignty.

5. Universal and Inclusive Spirit

There are issues in the existing international reality which show a lopsided growth at this moment. With the respective country-wise data from the United Nations Organization it creates a doubt whether true global spirit can be really achieved or not. Universalism and inclusivism is overshadowed by fundamentalism and exclusivism. The epistemology that ought to be wide and vast is still suffering at times from the clashes of Snow-Leavis controversy of cultural debates leading to intellectual sectionalism sans internationalism. When international law and its co-operations tend to show a potential to achieve global order, law-teaching of a subject must impart that universal and inclusive global spirit of brotherhood, global justice, equal sharing of natural resources and absence of geographical inequalities and cultural differences. This is indispensable for all levels of knowledge in every law-subject. The trend of sustainable development, gender justice, or for that matter all the issues that General Assembly of the United Nations, or WTO and WIPO bring this element of universalism and inclusive spirit where nation-states interact with each other under one international family consisting one international legal order and community system. The problems of the Hague Conventions exactly point to these issues where exclusivism of international jurisdictions is imposing serious limitations to the fundamental freedoms of all men and women irrespective of geographical region and culture.

6. New Frontiers of Research

The global issues listed periodically by the United Nations and by the Union of International Associations give us a clue as to what kind of research that can be carried on in law and legal policies for the benefit of humanity. With advancements in science, technology and information high-way, knowledge is exploding in great speed with interactions from every side. Arts and Humanities collide with pure and applied sciences to new heights and depths that human mind is yearning to understand. If specialised knowledge among all disciplines of knowledge is integrated it can eradicate many ills that afflict our daily life such as diseases, poverty, battles and diminution of natural resources. At this, juncture knowledge of all disciplines waits for the gates of legal knowledge to be opened for them that will bring harmony among all. Legal research in every field of knowledge ought to be carried to understand its interrelation with other disciplines of knowledge as suggested in the studies by Jenks who encouraged legal researchers to explore the option of creative imagination in international laws. The interdisciplinary and multidisciplinary knowledge, and the UNESCO's transdisciplinary knowledge and new trends in cross-pollination of knowledge must be shown to the young minds which are receptive and un-conditioned without bias which is a fertile field for sowing the seeds of inspiration for new legal knowledge and research.

CONCLUSION

The psychological practices of legal pedagogy as listed above can bring effective law-teaching which in turn can take not only law and legal education to new heights but also our own daily life and society to a new charm and age of order and stability as mentioned in the introduction. However, a caution is appropriate here to safeguard teachers and teaching against mistakes that can come as a result of excess enthusiasm. The success of legal pedagogy is based on various factors such as understanding the standards to be undertaken for effective law-teaching, balance among all aforementioned practices and their time-bound requirements and applications like subject-specific needs, proper appraisals and evaluation methods that follow teaching. Law students and graduates must absorb the spirit of law in thoughts, sense of law in deeds and, power of law in action. They all must impact societies to understand the mutual relationship between law and society. Law-teaching and law-teachers have a great role in building this tryst with law, life and society. An effective law-teacher can be equalled to thousand mothers in the society. Law-teachers engage law students and graduates to think integrally, act legally and, manifest both peace and progress in an orderly way in society. These psychological practices of legal pedagogy can impart law-students and graduates not only the knowledge of law, but also their roles in the society after graduation. Effective law teaching based on these parameters can bring true character and nobility to law-teaching whereby peace, progress, prosperity in individual and collective life, national and international environment, justice and equality, liberty and fraternity will enhance life of all beings in this planetary existence. The seven psychological parameters of recognising legal pedagogy can be understood from 24 sub-elements of learning in Bloom's Taxonomy of Learning in Action (Bloom-ii, 2015). The perfect society that we all dream for; promise of the Indian Constitution and United Nations Charter has its secret key in a

sanctified place of a class-room where effective law-teaching illumines minds, transforms behaviour and brings the change that we all need at this critical hour.

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Psychological Well-Being, Gender and Optimistic

Attitude among College Students

Vinayak M. Honmore¹, M. G. Jadhav²

ABSTRACT

The present paper aimed to study psychological well-being in relation to gender and optimistic attitude among college students. Two hundred first year Arts, Commerce and Science students (100 males and 100 females) from different colleges in Islampur and Sangli (Maharashtra) participated in the present study. The participants received Psychological Well-Being Scale (PWB) with five subscales (Sisodia and Choudhary, 2012) and Optimistic-Pessimistic Attitude Scale (Parashar, 1998). The multivariate and univariate analyses were directed to assess the subscale consistency of the PWB, the factor structure of the PWB in terms of its subscales, and gender differences in PWB, its subscales and optimistic attitude. The relationship between psychological well-being, its subscales and optimistic attitude has been thoroughly analyzed. The obtained results are discussed in the light of earlier work.

Keywords: *Psychological well-being, Gender, Optimistic attitude*

In the recent past, a large number of psychologists have been interested in overlapping areas like quality of life, life satisfaction, happiness, subjective well-being, psychological well-being etc. The focused efforts in these areas were partly responsible for the emergence of positive psychology. The psychologists also studied various demographic and personality correlates of the constructs just mentioned. Carol Ryff (Ryff, 1989, 1995) popularized the concept of psychological well-being and developed the necessary tools for this purpose. Ryff's Psychological well-being scale assesses six theory-guided dimensions of well-being - Positive relations with others, Autonomy, Environmental mastery, Personal growth, Purpose in life, and Self-acceptance.

Ryff (1989) reported significant overall gender difference in the Psychological well-being subscales, apparently using MANOVA. But subscalewise univariate analyses revealed gender difference only for the Positive relations with others, females scoring higher than males. Ryff (1995) replicated this finding. Roothman, Kirsten and Wissing (2003) used 13 scales related to Psychological well-being and reported small to medium gender differences on some of the

¹ Department of Psychology, Smt. Mathubai Garware Kanya Mahavidyalaya, Sangli

² Department of Psychology, K. B. P. College, Urun-Islampur. (Dist: Sangli)

scales. In Indian context, Hasnain, Wazid and Hasan (2014) and Vijayshri (2015) found gender difference on life satisfaction, females scoring higher than men. Akhter (2015) reported females to be higher on psychological well-being. In fact, this review would be considerably lengthened if the literature on gender differences in related areas like quality of life, happiness, subjective well-being etc. is included. To sum up, in general the studies indicate either the absence of gender differences or only small to medium gender differences in psychological well-being. One aim of the present study is to explore gender differences in psychological well-being by employing a tool having the dimensions of well-being which are somewhat different from Ryff's dimensions.

One of the important attitudinal dispositions related to psychological well-being is the optimistic/pessimistic attitude. The studies by R. Singh and Dhyani (2013), S. Singh and Mishra (2014), and Hasnain, Wazid, and Hasan (2014) found no significant gender differences on optimism/pessimism. However, Naresh Kumar (2012) found females to be more optimistic, whereas Vijayshri (2015) found females to be more pessimists. Thus the findings on gender difference in optimistic/pessimistic attitudes are a bit inconsistent.

The studies relating optimism/pessimism with well-being yielded comparatively a clear picture. There is substantial evidence that optimists use different coping strategies than do pessimists and that these coping differences contribute to the positive association between optimism, better adjustment and well being. (Stanton & Snider, 1993; Carver, Scheier, & Weintraub, 1989). Optimists possess more extensive and supportive social networks, and report longer friendship than do pessimists; the social networks influence psychological wellbeing by operating as a stress buffer (Cohen & Wills, 1985). Coulter's (1999) review, covering medical field, also indicates the association between pessimism and distress, and optimism and well-being. (Ferguson & Goodwin, 2010) also found optimism to be a predictor of both subjective and psychological well-being. Thus psychological well-being and optimistic attitude appear to be positively associated.

OBJECTIVES

The objectives of the present study are as following.

1. To explore the gender differences in psychological well-being and optimistic attitude, since the earlier finding in this regard are a bit inconsistent.
2. To study the relationship between psychological well-being and optimistic attitude.

HYPOTHESIS

Psychological well-being and optimistic attitude would be positively associated.

METHOD

Participants

Initially, 206 students (100 males and 106 females) from different senior colleges of Islampur and Sangli city (Maharashtra), studying in the first year of Arts, Commerce and Science, participated in the present study. As explained in sec. 1 of the Results, in order to have equal number of males and females, six female cases were randomly eliminated. Thus 100 males (mean age = 18.77, SD = 0.80) and 100 females (mean age = 18.43, SD = 0.59) were retained for final analysis. For the entire sample, the mean age was 18.60 years with SD of 0.72.

Tools

1. PSYCHOLOGICAL WELL-BEING SCALE

Psychological Well-Being Scale developed by Sisodia and Choudhary (2012) was used to measure psychological well-being among the participants. It contains 50 items measuring five dimensions (subscales) of well being i.e. Life satisfaction, Efficiency, Sociability, Mental health, and Interpersonal relations. Each subscale has 10 items, each item with the five-point response category ranging from strongly agree to strongly disagree. Thus the scale provides scores on five dimensions/subscales, in addition to a score on the total psychological well-being. High score indicates high psychological well-being. For the total well-being score, the internal consistency reliability coefficient is reported to be .90 and the test-retest reliability is reported to be .87 for the normative sample. The test manual claims face and high content validity.

2. OPTIMISTIC-PESSIMISTIC ATTITUDE SCALE

The scale constructed by Parashar (1998) was used to measure optimistic-pessimistic attitude among the participants. It contains 40 items in which 20 items are related to optimistic attitude and 20 items are related to pessimistic attitude. Each item has two alternatives, i.e. agree and disagree, and the respondent is asked to choose one of the two alternatives. For scoring on optimistic items, '1' (one) score is given for every 'agree' response and a '0' (zero) for 'disagree' response. The scoring on pessimistic items is done in a reverse order. Thus, two separate scores, one on optimistic and the other on pessimistic attitude are obtained and the total score is obtained by adding these two scores. Higher score on this scale indicates higher optimistic attitude. The scale was developed on a sample with an age range of 13 to 25 years. The Kuder-Richardson reliability of .62 and test retest reliability of .74, with a time interval of two months is reported. The test manual reports some validity data.

Procedure

Both the scales were administered to the participants at their respective colleges with prior permission of the Principals in a small group of 10 to 15 participants at a time. The students who voluntarily agreed to participate were used in the study.

RESULTS

1. Data Screening and Detection of Outliers

To begin with, the data of 206 cases (100 males and 106 females) were available. Each subject had scores on five subscales of Psychological well-being, Total psychological well-being and Optimistic attitude. The data were carefully searched for univariate outliers using a cut-off criterion of $z = \pm 3.29$, $p \leq .001$ (Field, 2005) and multivariate outliers using Mahalanobis distance (D^2), with a cut-off criterion of $p \leq .001$, separately for males and females as well as for the entire sample. (While computing D^2 , Total psychological well-being was omitted, since its inclusion would lead to the problems related to multicollinearity and singularity.) This search identified four outlying observations. Since it was felt that these four outlying observations belonged to the population of interest, each outlying case was assigned “a raw score on the offending variable(s) that is one unit larger (or smaller) than the next most extreme score in the distribution” (Tabachnick & Fidell, 1989, p. 70). This strategy retains the outlying cases permitting wider generalizability, but reduces their undue influence.

In order to have equal number of males and females, six cases were randomly omitted. The second search for outliers was repeated and no outliers were detected at this stage except one borderline observation which was ignored (Meyers, Gamst, & Guarino 2006). Thus for final analysis, 200 cases (100 males and 100 females) were retained.

2. Descriptive Statistics

The means and standard deviations (SD) for the variables in the study are presented in Table 1. These results will be referred to subsequently, wherever necessary

Table 1: Descriptive Statistics for Psychological Well-Being and Optimistic Attitude along with relevant univariate inferential statistics.

Variable	Entire sample		Male		Female		t [@]
	Mean	SD	Mean	SD	Mean	SD	
Life satisfaction	37.41	6.01	36.65	5.92	38.17	6.03	1.80
Efficiency	40.34	4.97	41.00	4.61	39.68	5.24	1.89
Sociability	39.42	5.02	39.41	5.24	39.43	4.81	0.03
Mental health	35.43	6.38	36.61	6.01	34.25	6.56	2.65**
Interpersonal relations	42.75	4.46	42.23	4.89	43.28	3.93	1.67
Total PWB	195.36	19.83	195.90	20.55	194.81	19.16	0.39
Optimistic attitude	30.99	3.16	30.75	3.66	31.23	2.57	1.07

** $p < .01$. @ $df = 198$.

3. Gender Differences in Psychological Well-Being: Results of MANOVA and Subsequent Univariate Analyses.

To assess the gender differences in Psychological Well-Being subscales, one-way multivariate analysis of variance (MANOVA) has been employed with gender as the independent variable and the five psychological well-being subscales as the dependent variables. To assess the suitability of MANOVA in this analysis, the pooled within-cells correlation matrix was computed among the dependent variables. The application of the Bartlett's test of sphericity to the pooled within-cells correlation matrix (Norusis/SPSS Inc, 1990) yielded the test statistic of 283.95 ($df = 10$, $p < .001$) indicating that the obtained within-cells correlation matrix significantly departed from the identity matrix, thus justifying the application of MANOVA instead of only multiple univariate t tests separately for each dependent variable.

The examination of residuals through the normal probability and detrended normal probability plots of the residuals for each dependent variable (Norusis/SPSS Inc, 1990) revealed that the assumption of normality did not pose a problem for the application of the MANOVA. The application of the Box's M test to the variance-covariance matrices of the concerned groups indicated that the assumption of the homogeneity of the variance-covariance matrices is satisfied ($M = 21.65$; $\chi^2 = 21.07$, $df = 15$; $p > .05$). No problems were detected related to multicollinearity. Thus the assumptions underlying the MANOVA are met quite satisfactorily in the present analysis, thus justifying the presentation of the MANOVA results.

The MANOVA yielded Wilks' Λ (lambda) of .859 ($F = 6.39$, hypothesis $df = 5$, error $df = 194$, $p < .001$; $\eta^2 = .141$). Thus the gender differences are significant at .001 level. The multivariate η^2 of .141 suggests that gender explained 14.1 percent variance in the corresponding canonical variate. The Life satisfaction, Efficiency, Sociability, Mental health and Interpersonal relations correlated .32, -.33, .005, -.47 and .29 respectively with the canonical variate best discriminating the two genders.

Since Wilks' Λ is significant, the results of multiple univariate t tests are also reported in Table 1 itself for space reasons. It may be noted that males scored significantly higher on the Mental health dimension of psychological well-being (males' mean = 36.61, females' mean = 34.25, $t = 2.65$, $df = 198$, $p < .01$). Cohen's d , the measure of effect size, turned out to be 0.38 ('small' according to Cohen, 1992). The point biserial correlation between gender and mental health dimension of psychological well-being was found to be -.19, $p < .01$, suggesting that higher mental health well-being is associated with males. Gender explained 3.42 percent of variance in mental health dimension. Since the t values for other subscales are non-significant, the effect sizes and relevant statistics need not be computed for them. Also the gender difference for total psychological well-being is non-significant ($t = 0.39$, $df = 198$, $p > .05$).

Since the variance-covariance matrices for males and females are homogenous and the mean differences across the genders are also either non-significant or small, male and female data were

pooled together for Psychological well-being subscales for the purpose of correlational and factor analysis.

4. Subscale Consistency and Factor Analysis of Psychological Well-Being Subscales

To find out whether the five subscales of Psychological Well-Being are internally consistent, subscale consistency, called as ‘subtest consistency’ (consistency among subtests) by Cronbach (1951, p. 321), alpha coefficient was employed. Lord and Novick (1968) have also discussed the use of alpha for the reliability of composite measurements. The subscale consistency for the Psychological Well-Being Scale turned out to be .784. Armor’s (1974) theta coefficient, assessing the subscale consistency, turned out to be .793. As theoretically expected, Armor’s theta is slightly above the Cronbach’s alpha. These are quite satisfactory values, in view of the fact that they are based on only five subscales. (While computing the subscale or subtest consistency, each subscale score is treated like an item score.) This justifies the use of total psychological well-being as a single construct.

To validate the point in the above paragraph, factor analysis of the five subscales was carried out. Table 2 reports the intercorrelations among the five subscales of the Psychological well-being. All the intercorrelations among the five subscales are significant at .001 level. For space reasons, this table also includes the correlations of five subscales of Psychological well-being with Optimistic attitude.

Table 2: Intercorrelations among Five Subscales of the Psychological Well-Being and Optimistic Attitude

Variables	Life satisfaction	Efficiency	Sociability	Mental health	Interpersonal relations	Total PWB	Optimistic Attitude
Life satisfaction	1.00						
Efficiency	.54***	1.00					
Sociability	.35***	.40***	1.00				
Mental health	.42***	.51***	.38***	1.00			
Interpersonal relations	.41***	.50***	.50***	.32***	1.00		
Optimistic Attitude	.04	.21**	.08	.08	.20**	.16*	1.00

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed)

The suitability of the 5 x 5 correlation matrix (representing the intercorrelations among the five subscales of the PWB) for factor analysis was assessed by visual scrutiny. The application of Bartlett’s test of sphericity yielded the test statistics, $\chi^2 = 271.80$, $df = 10$, $p < .001$, suggesting that the obtained correlation matrix significantly departed from the identity matrix. The overall KMO index is .80 which can be classified as ‘meritorious’ (Kaiser, 1974). The KMO indices for

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Life satisfaction, Sociability and Mental health are .83, .80 and .81 respectively, all three of them being 'meritorious'. The KMO indices for Efficiency and Interpersonal relations are .77 and .78 respectively, both of them being 'middling'. This pre-factor-analysis examination testified the factorability of the correlation matrix.

In the initial run, both eigenvalue ≥ 1 criterion and Cattell's scree plot, presented in Figure 1, suggested a single factor solution. As the initial run indicated, the first principal component condensed 54.72 percent of variance. However, with the limited number of variables (five in this analysis), common factor model is better suited than the component model. As such, the results of principal axis factoring (common factor model) are only reported in Table 3. With single factor solution, further rotation is not necessary. KMO indices are also presented in this Table to save space.

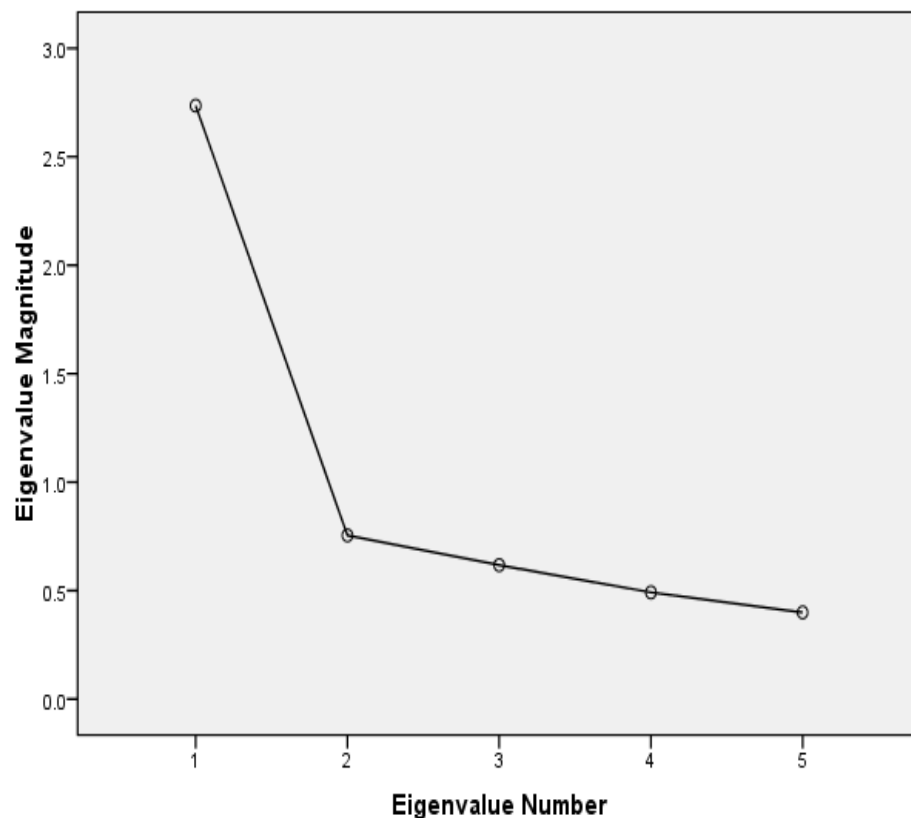


Figure 1: Cattell's Scree Plot for the Five Subscales of Psychological Well-being Scale

Table 3: Factor Analysis of Psychological Well-Being Subscales.

Well-being Subscales	First Principal Axis Factor		KMO Indices*
	Loadings	h^2	
Life satisfaction	.66	.433	.83
Efficiency	.77	.595	.77
Sociability	.60	.361	.80
Mental health	.61	.371	.81
Interpersonal relations	.65	.425	.78
Total Variance explained		43.70 percent	Over all KMO = .80

* For space reasons, KMO indices are also presented in this table.

The examination of Table 3 indicates that all the factor loadings are sufficiently high. The first principal axis factor condensed 43.70 percent of variance. The first principal axis factor score (obtained by regression method) correlated .989 with the Total psychological well-being score. Thus, the single-factor solution is accepted.

5. Psychological Well-Being in relation to Gender and Optimistic Attitude

The application of the t test indicated non-significant gender difference in Optimistic attitude ($t = 1.07$, $df = 198$, $p > .05$). Table 2 indicates that the Optimistic attitude correlated positively with the total Psychological well-being ($r = .16$, $p < .05$). The first principal axis factor score of the PWB correlated .18 ($p < .01$) with the Optimistic attitude. However, the Optimistic attitude correlated significantly, and of course positively, only with the two subscales of Psychological well-being - Efficiency ($r = .21$, $p < .01$) and Interpersonal relationships ($r = .20$, $p < .01$). Thus the results partially support the hypothesis stating that 'Psychological well-being and optimistic attitude would be positively associated'.

The pooling of male and female data of the five subscales for their correlational and factor analysis has already been justified above. However, in the context of Optimistic attitude, the preliminary scrutiny suggested that the correlation of Optimistic attitude with Sociability subscale is different for males ($r = .25$, $p < .05$) and females ($r = -.19$, $p = .065$, quite close to .05 level of significance). The application of z test to evaluate difference in two independent correlations revealed that the correlations between Sociability and Optimistic attitude significantly differed in males and females ($z = 3.06$, $p < .01$). This resulted in the non-significant correlation ($r = .08$) between Optimistic attitude and Sociability for the entire sample. The correlations of Optimistic attitude with other subscales and Total psychological well-being showed no gender difference as per the z tests. Thus gender moderates only the relationship between Optimistic attitude and the Sociability dimension of Psychological well-being. Hence, in the context of relationship between Optimistic attitude with Psychological well-being subscales/scale, except for Sociability, the correlation values for the entire sample would be more appropriate and the same have been used while evaluating the hypothesis. The application

of canonical redundancy analysis revealed that Gender and Optimistic attitude together explained 10.6 percent of variance in the five subscales of Psychological well-being.

DISCUSSION

The results (sec. 4) indicate that the subscale consistency for the Psychological well-being scale, used in the present study, is quite satisfactory. The factor analysis of the five subscales of the PWB yielded a single factor solution, explaining 43.70 percent of variance. This is quite a satisfactory percent of variance explained, especially in view of the fact the common factor model has been followed. Thus, in the context of the present PWB scale, it is possible to conceptualize total, overall or general psychological well-being as a single construct. Panicker (personal communication, August, 2015) carried out a similar analysis for Ryff's PWB scale and similar results have been obtained.

The MANOVA results (sec. 3) indicate the significant overall gender difference. This result is similar to Ryff's (1989, p. 1076) finding about the 'overall effect of sex' on psychological well-being, though Ryff's scale and the PWB scale in the present study employed different dimensions or subscales. The results also indicated that the psychological well-being in terms of Mental Health dimension is better in males than females, although the effect size in this context is small (Cohen's $d = .38$). The majority of the participants in this study belonged to rural or semi-urban background characterized by male dominance and emphasis on traditional norms and restrictions on females. In a society in transition, this may create some mental health problems for the college going females where equality of the genders is emphasized at conceptual level. Thus the present findings are in line with the earlier evaluation of the literature on gender differences in introduction indicating 'either the absence of gender differences or only small to medium gender differences'.

The results (sec. 5) also indicated the absence of gender difference in optimistic attitude. This finding is in agreement with the results of R. Singh and Dhyani (2013), S. Singh and Mishra (2014), and Hasnain, Wazid, and Hasan (2014). The results also indicated that the optimistic attitude correlated with Total psychological well-being ($r = .16, p < .05$) as well as the first principal axis factor of the psychological well-being ($r = .18, p < .01$). Although these two correlations are statistically significant and support the hypothesis, they are comparatively 'small' using Hopkins' categorization (cited in Kotrlik and Williams, 2003).

The present work has yielded some interesting results. In the subscalewise analysis, Optimistic attitude significantly correlated with only the two subscales - Efficiency and Interpersonal relations- of the Psychological well-being scale employed in the present work. Thus while exploring the relationship between personality characteristics, including optimistic attitude, and psychological well-being, subscalewise analysis appears to be more informative. In the present research, gender moderated the relationship between Sociability dimension of the psychological well-being and optimistic attitude. From the cross-cultural perspective, this is an interesting finding and needs to be further explored.

Author Note/Acknowledgement: V. M. Honmore (hvinayak30@gmail.com) is currently working as an Assistant Professor, Department of Psychology, Smt. M. G. Kanya Mahavidyalaya, Khan Bhag, Sangli 416 416. M. G. Jadhav, Ph. D. (drmg.jadhav@rediffmail.com) is currently working as an Associate Professor and Head, Department of Psychology, K. B. P. College, Urun-Islampur, Dist: Sangli. We gratefully acknowledge Prof. P. H. Lodhi, former Head, Department of Psychology, University of Pune, Pune 411 007, for critically reading the manuscript and for his suggestions. Reprint request and other correspondence should be addressed to the first author.

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